

A Magazine of Nature:
Garden and Forest and the Rise of American Environmental Awareness

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Abstract

This work is a comprehensive study of an American magazine, *Garden and Forest: A Journal of Horticulture, Landscape Art, and Forestry* published from 1888 to 1897. By applying prosopography, this work explores how a group of American intellectuals in the late 19th century shaped the environmental awareness in an urban industrial society. Botanist Charles S. Sargent and journalist William A. Stiles were its editors. Its 600 contributors included the nation's leading landscape architects, foresters, botanists, horticulturists, art critics, and amateurs. This work demonstrates that, although these people came from diverse social and educational backgrounds, and placed emphasis on different aspects of nature and society, they shared some common social values. Finding no necessary confrontation between aesthetic sentiment and scientific practice, the magazine believed that a truly civilized society should be an integrated landscape, incorporating nature and culture, garden and forest, beauty and utility, art and science, and city and countryside.

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Acknowledgements

About twelve years ago, I read my first historical work in English while I was a college student majoring in history: *Dust Bowl: The Southern Plains in the 1930s* by Professor Donald Worster. Although my understanding of English was poor at the time, this book captured me immediately. It was as a radical scholarly and even cultural shock for me that history could be written this way! Since then, I have realized that history does not have to be confined to man and culture; beyond that, there is a more complicated, interesting, and broad sphere incorporating nature and all its components—including man—for historians to explore. This field is called environmental history.

Five years after reading *Dust Bowl*, I undertook a big life adventure, heading toward the Great Plains of the United States to study environmental history with Professor Worster at the University of Kansas. Bewildered, I was almost lost in this completely new cultural and natural landscape, but fortunately (and in fact one of the most fortunate things in my life) I have had Professor Worster as my adviser. He has taught me with his vast knowledge, instructed me with his profound wisdom, encouraged me with his thoughtful understanding, and trained me with his strict discipline. He has opened a gate, leading me to appreciate another culture and use another language. He has taught me to cross national boundaries to see an entire planet and to break the cultural restraints to discover a natural realm. Without him, I would have never been able to finish my journey toward a doctoral degree, and, more

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Introduction

In January, 1888, a novel published under the title of *Looking Backward, 2000-1887*, cast the *fin-de-siècle* American city of Boston into a sharp and unfavorable contrast with a socialist utopia. Boston, in 2000, as witnessed by Julian West, the hero of the novel, was an equal society without class suppression, economic exploitation, political conspiracy, and wars. The entire nation had become a giant enterprise, and everyone found the most appropriate spot in this social machine, receiving the same income and getting along in harmony. Science and technology progressed to meet human needs and enhance their happiness, and individual freedom was secured by improvement in the power of production. Looking backward, however, West clearly recalled an older America where wealth was monopolized by a few people, where cities were shadowed by strikes, crimes, and poverty, and where residents were filled with unrest, anxiety, and bewilderment. For West, that old Boston in reality only haunted his memory; but for people living outside the novel, such a society was the only world they possessed. They had no choice, but to understand it, improve it, very often complain about it, and sometimes, find an alternative in fictions.

After its publication, *Looking Backward* jumped to the top of the best seller list. By the end of 1891, it had sold almost half a million copies, and was the biggest best selling book in the entire nation. At a time when American society was undergoing radical changes during a process of accelerating urbanization and industrialization, Americans' search for remedies for their urban problems grew much more eager too.

The majority of Americans might not have agreed with Bellamy's socialist vision, but it did not stop them from looking forward to the stable and prosperous order described in the novel.

There was, however, at least one point missing in this utopia. In the novel, only a few lines of brief description were given to some sort of nature inside the city: "Miles of broad streets, shaded by trees and lined with fine buildings, for the most part not in continuous blocks but set in larger or smaller enclosures, stretched in every direction. Every quarter contained large open squares filled with trees, among which statues glistened and fountains flashed in the late afternoon sun."¹ The 21st century Boston in Bellamy's fantasy was rich, clean, healthy, organized, and comfortable, but it left only a little space for the experience of nature.

For Frederick Law Olmsted, Charles S. Sargent, and Charles Eliot, the actual designers of late 19th century Boston, the urban environment depicted by Bellamy was pale and vague, lacking the vitality of nature and the charm of the native landscape, although they favored the prospect of material affluence and scientific advancement pictured by the novelist. In the transitional period from an agricultural society to an urban one, these environmental prophets not only noticed the various tensions existing in social, economic, and political relationships, but also recognized the troublesome relationship between nature and society, the alienation of urban residents from nature, the dreary and stressful city life, the rapid consumption of

¹ Edward Bellamy, *Looking Backward: From 2000 to 1897* (Digitalized by the University of Virginia American Studies Program: 1996-1997).
<http://xroads.virginia.edu/~hyper/BELLAMY/ch03.html>. (accessed on April 28 2008)

natural resources, and the deteriorating natural environment. In their vision, the quality and destiny of American civilization was inextricably involved with the harmonious and sustainable cooperation between human beings and nature.

This conception was the fundamental theme of a new weekly magazine *Garden and Forest: A Journal of Horticulture, Landscape Art, and Forestry*, which came into being on February 29, 1888, only a month after the thunderous appearance of *Looking Backward*. Like Bellamy's novel, this magazine examined the contemporary social system, its problems and advantages; but unlike the "fanciful romance" (as Bellamy called it), *G&F* discerned a distinct need in an urban society, a need for nature's continuing presence in the evolution of civilization.

This work is a close and focused study of that magazine, *Garden and Forest* (hereafter *G&F*). It explores how a group of American intellectuals in the late 19th century interpreted and promoted the embrace of nature in an urban industrial society. Charles S. Sargent, founder and director of the Arnold Arboretum at Harvard, and William A. Stiles, a *New York Tribune* editorial writer, were its editors. More than six hundred contributors wrote for the magazine, including the nation's leading landscape architects, such as Frederick Law Olmsted and Charles Eliot; foresters, such as Bernhard Fernow and Gifford Pinchot; botanists, such as Charles E. Bessey and Sereno Watson; horticulturists, such as Liberty H. Bailey; nurserymen, such Thomas Meeham and Edward Orpet; art critics, such as Mariana Van Rensselaer; journalists, such as Sylvester Baxter and Jonathan B. Harrison; and many amateur nature lovers. This study demonstrates that, although these people came from diverse social and

educational backgrounds, and placed emphasis on different aspects of nature and society, they shared some common social values. Maintaining a firm belief in democracy, a loyal commitment to science, and a sober understanding of nature's significance, they were unanimous that a truly civilized society should be an integrated landscape, incorporating nature and culture, garden and forest, beauty and utility, art and science, and city and countryside.

The magazine appeared in the period when many American intellectuals were critically examining modern civilization in all its dimensions. Some of them challenged the order and characters of the existing system in a more fundamental way; while more of them acknowledged the problems but sought solutions within the system, holding that civilization should keep progressing under the direction of science. Nature and the relationship between culture and nature captured the attention of many of these intellectuals. Among them, one group emphasized the responsibility of government for society, resources, and even nature in general, arguing for regulation of the nation's natural resources, especially forests, through scientific and efficient management. Thus, an important aspect of the Progressive era—the conservation movement—was emerging in the late 19th century. In the cities, meanwhile, a “back to nature” movement flourished among urban residents, reflecting a common Arcadian sentiment stimulated by urbanization. Some thinkers were concerned about the encroachment of modern industrial society not only on physical but also on spiritual freedom, others were concerned primarily about the health and well-being of urban residents, and still others about restoring masculinity.

Nature, or to some extent an illusion of nature, met these various demands, so another major reform in the late 19th century attempted to reshape urban environments, making them more natural and thus more beautiful and livable.

By weaving together its two major themes, gardens (a tamed nature) and forests (a wild nature), in the same fabric, *G&F* incorporated both concerns in its pages. It was a common and ground-breaking forum for different professions interested in present and future environmental issues. Its topics spanned a wide spectrum from the discovery of a new species to the cultivation of a single plant, from the introduction of new techniques in horticulture and agriculture to the theoretical discussion of botany, from the defense of urban parks to the preservation of wild primeval scenery, from the scientific methods of forest management to the government's responsibility for natural resources, from the investigation of nature's economy to the analysis of nature's aesthetic and utilitarian values. Rather than conceiving a utopian blueprint, the intention of *G&F* was to spur real reforms in government policy and public opinion to rectify the distorted man-nature relationship through its discussions and criticisms of contemporary problems.

This magazine had only a "modest" circulation, and after 1897 it ceased publication partly due to financial difficulties. But the influence of the magazine was not confined to its seemingly small circulation. Many of its articles were reprinted by other popular newspapers and magazines, such as the *New York Times*, the *New York Tribune*, and *The Century*. Its arguments and schemes were frequently quoted as authority or for further discussions in different meetings, conferences, and college

classrooms. It helped redefine two traditional fields, botany and horticulture, and shape two fledgling professions, landscape architecture and forestry. Many of its contributors converted their words into actions, pushing forward a national environmental movement, involving the environmental design of city landscapes, the preservation of national parks, and the efficient regulation of natural resources.²

The contributors' attitudes toward nature represented a profound ethos of its period—on the one hand, echoing Romanticism's celebration of natural beauty and, on the other, reflecting the scientific spirit of the Victorian age. Finding no necessary confrontation between aesthetic sentiment and scientific practice, the magazine and its contributors attempted to integrate nature into civilization as a progressive social value that emphasized the public good.

As the creation of a particular group of people, a magazine, to a certain extent, is like a person who has its own mind, belief, and impact. Compared to an individual person, it might have more inner conflicts, but to some extent, a magazine can better mirror the ethos of a society than any single man or woman. The scope (the contributors and sometimes the readers) of a magazine is wider and more varied, and the connection between a magazine and its society is more complicated. A genius could be a deviant from a society or much more ahead of it, but a magazine is usually a product of the views and desires of its age. It reflects some specific social trends and conveys some common sentiments, but a successful magazine also maintains a

² Frank Luther Mott, *A History of American Magazine*, vol. 4, 1885-1905 (Cambridge: Harvard University Press, 1938-68), 342.

critical attitude toward reality. Editors play a pivotal role in a magazine, for their visions and choices determine its basic tone and focus. Meanwhile, contributors, who might have different social and educational backgrounds, are at least motivated by similar interests and purposes when they are writing for the same magazine. A magazine is a collection of many people's ideas, but rather than a loose amalgamation, this one was especially cohesive and systematic.

To study the history of a magazine, first, a comprehensive analysis of the social context of the magazine is required. Second, it is necessary to clarify what is the major theme of the magazine, and who are the editors and the main contributors, their social status, education, professions, interactions, and motivation to write for the magazine. Third, focusing on some specific questions, it is important to study the ideas, feelings, as well as tendencies revealed in its pages. Fourth, if the material allows, one should examine the readers and their response to the magazine. Finally, the historian of a magazine should explore the relationship between the magazine and society, especially its influence on the development of a particular historical period.

Prosopography is a useful method that can be applied to the study of a magazine. In her essay published in *History and Computing*, Katharine Keats-Rohan defines the phrase as an “auxiliary discipline” which “is about what the analysis of the sum of data about many individuals can tell us about the different types of connexion between them, and hence about how they operated within and upon the institutions—social, political, legal, economic, intellectual—of their time.” Furthermore, Keats-Rohan cites the definition given by Paul Magdalino that “the essence of

prosopography is to establish identity; the identity of an individual within a group, and individual identity as part of group identity.”³

As an intellectual institution, a magazine serves as a unique platform for many individuals to perform, collaborate, and dispute. The records related to a magazine include not only the biographical information of the people associated with it, but also the articles published in it. Through the study of these records, a history of a magazine tells the story of how that institution organizes a wide range of people into a cooperating force to pursue a certain goal. In the meanwhile, it attempts to explore not only the commonality and connection, but also the difference among a specific group of people.

G&F offers a good case to undertake the research of a magazine’s history. It had a clearly defined and focused theme but encompassed broad contents. It played a unique and pioneering role in promoting environmental awareness in the United States during a critically formative period. Studying this magazine involves three lines of analysis. First, it is necessary to reevaluate this journal’s contribution to the development of American history. The significance of *G&F* in the development of American environmental history has been recognized to some extent, and all its issues have been digitalized by the Library of Congress with free online access, but the magazine has not received a comprehensive study.

³ K.S.B. Keats-Rohan, “Prosopography and Computing: A Marriage Made in Heaven?” *History and Computing* 12, No. 1 (2000): 2, 3, <http://web.ebscohost.com/ehost/pdf?vid=4&hid=112&sid=00eddd68-d5ae-4dcc-a016-6c23aa5fb300%40sessionmgr102> (accessed on April 16)

In 2000, the Arnold Arboretum edited two special issues on *G&F* in *Arnoldia*, the magazine of the institute, which collects six short essays discussing the magazine from different perspectives. Sheila Conner gives a brief introduction to the magazine, its connection with the Arnold Arboretum, main contents, and major contributors. Char Miller's essay focuses on its relation with American forestry and points out that it was in *G&F* that the ethos of the modern conservation movement; "this assertion of professional specialization, ... linked to the slow but significant growth of public support for an increased federal intervention in forestry management," was first expressed. Ethan Carr analyzes how the magazine promoted landscape architecture to the status of a fine art, and argues that, "in an era before a professional organization or academic instruction existed in the field of landscape architecture," *G&F* "took on aspects of both." Phyllis Andersen evaluates the role of William Stiles in editing the magazine and sketches his career as an urban park advocate. Stephen Spongberg explores the magazine's contribution to botany and its close relationship with the notable botanists in the nation. Mac Griswold reviews its influence in horticulture and argues that the stance held by the editors and contributors of *G&F* in American horticulture was democratic and balanced, which intended to make farmers and growers "actively involved in and the beneficiaries of, scientific horticulture." This work is greatly informed by the analysis and argument made in these essays. But limited by length and focus, they do not locate the magazine in a much broader

historical context, neither do they delve deeply into its influence in social and environmental terms.⁴

G&F has also been mentioned or discussed in different environmental works. For example, in *Forest and Garden: Traces of Wildness in a Modernizing Land, 1897-1949*, Melanie Simo borrows the title from the magazine, but she takes the ceasing of the journal's publication as the start of her study. She does not explain directly why she decides to open her book with the year 1897, but she indicates that *G&F* symbolized the last experiment in attempting to gather professionals from various fields and amateurs to discuss nature's role in American civilization. After then, professionalization and specialization became increasingly distinct. In her book, Simo reveals the overlap between wilderness and cultivation in the works of diverse authors and landscapes in the first half of the 20th century. She leaves *G&F* out, although it initiated the discussion on different issues related to nature in a common forum.⁵

Many of the magazine's more prominent contributors have attracted the attention of historians. For instance, there is a full biography on Sargent, several biographies on Frederick Law Olmsted, two biographies on Liberty Hyde Bailey, and several biographies on Gifford Pinchot. But still many contributors are unknown to and neglected by historians, and together, they have never been studied as a coherent group of people who came together in the magazine to define a common perspective.

⁴ Char Miller, "A High Grade Paper: *Garden and Forest* and Nineteenth-Century American Forestry," *Arnodia* 60, no. 2 (2000): 22; Ethan Carr, "*Garden and Forest* and 'Landscape Art,'" *Arnodia* 60, no. 3 (2000): 5; Mac Griswold, "The Influence of *Garden and Forest* on the Development of Horticulture," *ibid.*: 32

⁵ Melanie Simo, *Forest and Garden: Traces of Wildness in a Modernizing Land, 1897-1949*, (Charlottesville: University of Virginia Press, 2003).

Their professions differed, their foci diverged, and their strategies varied. Some of them were regarded as urbanists, and some of them were defined as new agrarians.⁶ But the identity these contributors shared in this particular group was that they were all early environmentalists who had intimate acquaintance with nature, sincere love of nature, and a passionate commitment to constructing a new harmony between culture and nature.

Second, a comprehensive study of *G&F* adds a more integrated view to scholarly treatment of the late 19th century environmental movement. By identifying the main contributors of *G&F* as a group of early or proto-environmentalists, this work argues that this national campaign launched in the last two decades of the 19th century comprised diverse dimensions, ranging from the reformation of urban circumstances to the preservation of wild landscapes. In its essence, this movement intended to place nature under the regulation of civilization, modifying nature in a more gentle and clever way, and to some extent, defending nature's primitiveness for the sake of beauty.

In *Beauty, Health, and Permanence: Environmental Politics in the United States, 1955-1985*, Samuel Hays argues that environmental concerns experienced a transformation from the prewar conservation movement to the postwar environmental movement during the 1950s. The former rose in an age of production and focused on the efficient development and use of natural resources; while the latter took shape in a

⁶ In *Brown Decades: The Study of the Arts in America, 1865-1895*, Lewis Mumford identified Olmsted an urbanist. Allan Carlson argues that Liberty H. Bailey was a new agrarian in *The New Agrarian Mind: The Movement toward Decentralist Thought in Twentieth-Century America*.

society of consumption and has been interested in the development of amenities to enhance the quality of life. Hays points out that the postwar environmental movement is characterized by the search for environmental amenities, health and well-being, and ecological perspectives. Rather than merely seeing nature as a supplier of material resources, the environmental movement places equal emphasis on the aesthetic, ecological, and recreational values of nature, pursuing beauty, health, and permanence in various environments.⁷

This work borrows the terminology “environment movement” to identify the late 19th century environmental concerns and activities, for a close study of *G&F* demonstrates that this movement involved much broader scopes and more diverse elements than the conservation movement defined by Hays. The contributors and editors of the magazine did not apply “environment” or “environmentalism” in their essays or arguments; however, their advocacy in encouraging personal gardening, building urban parks and open spaces, and establishing national parks all suggested their way of developing environmental amenities, which according to Hays, characterize the modern environmental movement.

Furthermore, a study of the magazine’s effort in combining the different perspectives of the late 19th century environmental concerns also challenge the separated views in the narratives of the environmental history in the late 19th century. First, this work challenges the detachment of urban environmental considerations from wilderness enthusiasm. On the one hand, a great number of environmental

⁷ Samuel Hays, *Beauty, Health, and Permanence: Environmental Politics in the United States, 1955-1985* (New York: Cambridge University Press, 1987).

historical works studying this time period focus on the management of nature outside cities, either its resources, such as forests, soil, and rivers, or its beauty, such as the establishment of national parks. On the other hand, there has been a rich literature on urbanization, urban park movement, and landscape architecture, but most of these works do not place the urban environmental reforms in the context of the national environmental movement. In both categories, few works pay much attention to the close interaction between the environmental movement occurring inside cities and in the wilder natural world.

Second, this work challenges the polarized dichotomy of preserving natural beauty or conserving natural resources. The confrontation between utility-oriented Gifford Pinchot and beauty-driven John Muir has become a dramatic legend in environmental history. Overemphasizing the conflict between them and the two groups represented by them, many environmental historical works fail to explore their cooperation in forcing the coming of this national environmental movement and the commonality in their knowledge of nature and their values of society.

Third, this work challenges the neglect of the connection between urban beauty and urban health and efficiency of urban design in the historical studies. Scholarship on urban environmental movement in the late 19th century focuses on the sanitary side of urban environmental reforms, such as garbage removal and the control of water pollution; and few works bring urban landscape construction, such as urban parks, streets, and people's backyards, into their discussion.

G&F showed that the different dimensions of the environmental movement derived from the same origin, the growing demand placed on nature along with urbanization and industrialization, and these dimensions had same emphasis in their strategies: turning to government responsibility for nature, applying expertise in managing the environment, and enlightening the public opinion. The conservation movement and the “back to nature” movement were in fact two complementary aspects of this broader movement. The latter expressed the public’s sentimental feelings for nature, informed and propelled by the former. And the former was a conscious intention of reconciling the man and nature relationship through the policy of government and practice of expertise. Similar to the integrated landscape these early environmentalists intended to construct, the late 19th century American environmental movement was also a comprehensive concept, unifying urban and rural spheres, and aesthetic and utilitarian realms.

The third line of the analysis of this study sheds light on some modern controversies over the definitions of nature and wilderness, and their complicated relationships with different social groups. Rather than seeing nature as a specific place or object, many of the magazine’s contributors regarded it as a force, originally beyond the control of human beings. The wilderness implied an area where nature was the predominant power, where human traces might be found, but their influence did not overwhelm the natural order or change the trajectory of its evolution. The magazine further argued that people’s call for nature was not only a moral or spiritual need, but also an instinct, a biological or physical desire which was born with

everybody. Different persons might have possessed different aesthetic and spiritual visions of nature, but their physical need for nature was alike and innate. In their advocacy of park building and natural scenery preservation in a new urban industrial age, these early environmentalists paid more attention to the commonality of the human needs than their differences.

This question is directly related to the development of modern urban society. To what extent and in what forms should nature exist in cities? Was *G&F's* mission or project of incorporating trees, grass, clean air, and fresh water in cities merely a fantasy of the American middle-class imposed on the urban landscape? Or was it actually one shared by the majority of people in the United States and even other nations? Since urbanization is still an ongoing process among all developing countries in the world, and urban population has been expanding continually in every nation, it becomes even more urgent for our contemporaries to answer this question: What role should nature play in an urban age and an urban environment?

This work consists of six chapters in addition to the introduction and conclusion. The first chapter introduces the social and intellectual context of *G&F*, analyzing the social problems emerging along with urbanization and industrialization, and people's response to these problems, especially to the complicated relationship between nature and human beings. This chapter also pays special attention to George Perkins Marsh and Frederick Law Olmsted, from whom the magazine derived great inspiration.

The second chapter focuses on the study of the two editors, Sargent and Stiles, their lives and thought, connection and difference, and how their perception and

experience shaped the magazine. It argues that their shared enthusiasm for nature determined the fundamental theme of the magazine, but their difference of outlook was crucial in giving the magazine a comprehensive quality. At the same time, this chapter discusses the educational mission of the magazine in enhancing public environmental awareness.

The third chapter analyzes the role of the magazine in redefining botany and horticulture and shaping such new professions as landscape architecture and forestry, through prosopographical research on its contributors. This chapter combines the careers of some important figures with their articles published in the magazine, and explores how these new professionals and their spokesmen tried to establish their own disciplines, stir public recognition, and apply their expertise in the regulation of nature.

The fourth chapter is mainly about the magazine's general vision of the relationship between nature and culture. It argues that by recognizing nature as an indispensable part of the progress of civilization, the magazine, on the one hand, advocated a universal love of nature and respect for the laws of nature while, on the other hand, it tried to refine and improve nature with the assistance of science and art. Ultimately, they intended to bring nature into a public domain, making both its beauty and resources accessible to the majority of people.

The fifth chapter explores the magazine's thinking about the design of the urban landscape. It indicates that *G&F* believed that urban civilization should be an integrated landscape, including not only cultural elements but also natural aspects.

Urban residents should recover an intimate relationship with nature, and ideally the urban landscape should incorporate the legitimate existence of nature, and simultaneously transform the nonurban hinterland with the urban concept.

The sixth chapter studies the magazine's view of forests, or the wilder part of the nation. It argues that the essential intention of the magazine in forest matters was to realize the multiple uses of forests, their profitability in the nation's economy, their significance in the system of nature, and their aesthetic and spiritual values, by applying scientific forestry, emphasizing government responsibility, and promoting public enthusiasm.

The conclusion briefly reviews the achievement of the magazine toward realizing an integrated landscape in an urban industrial society, and discusses how these intellectuals' pursuit might inspire the world we have today.

Chapter 1

Desiring a New Landscape

Before the 1890s, Jackson Park was a piece of desolate swampy land of about 500 acres in Southern Chicago on the edge of Lake Michigan. Although Frederick Law Olmsted and Calvert Vaux, the two most renowned landscape architects in the nation, were hired to design this area into a park in 1869, it remained undeveloped for two decades because of the Chicago fire in 1871 and other financial reasons. Olmsted's revisit in 1890 altered the fate of the park; it was chosen to be the fairground to hold the Columbian Exposition in 1893. Olmsted and a band of architects and artists were going to transform this wild boggy land into a blossoming garden to hail the four hundredth anniversary of Columbus's discovery of the new continent. Olmsted, like the rest of his fellow men, was eager to show the world how much they had achieved in the last four centuries. They not only turned the 500 acre "wasteland" into a "white city" with a sophisticated planned landscape and classic Beaux-Arts style buildings, but also celebrated the conversion of an entire continent from savagery to civilization. Jackson Park was the miniature of Chicago, while Chicago was the emblem of the United States of America. In less than a century, this city had been undergoing a substantial change from wilderness to metropolis.

Since the first world fair hosted by London in 1851, one of the major tenets of this international exhibition had been the celebration of a new level of civilization: an industrialized urban civilization as the outcome of thousands of years of struggle and

cooperation between human beings and nature. Modern metropolises signaled the most thorough transformation imposed on nature, represented the most advanced science, technology, institutions, and sometimes even art created by mankind, but also produced a very troubled relationship between nature and people. In this new relationship, people were separated from nature mentally and physically, while their growing material consumption and production made them depend on nature in a more complex way; they took for granted that they had subjugated nature and become the latter's master, while in its essence, nature has never been under the control of human beings. Most modern people abandoned direct contact with nature which their former generations had maintained through laboring in the soil, while many of them went searching for a reconnection with nature via different ways.

The United States, the new empire of the world, condensed this long evolving process occurring in the old world into several hundred years, witnessing the most radical changes in human history in the shortest time. When Lake Michigan reflected the shining rays launched by the new electric system of the Columbian Exposition, America was ready to embrace the two major themes of the world fair: city and industry. At this world fair, historian Frederick Turner presented his ground-breaking thesis, "The Significance of the Frontier in American History," in which he depicted the development of American history in one sentence:

It begins with the Indian and the hunter; it goes on to tell of the disintegration of savagery by the entrance of the trader, the pathfinder of civilization; we read the annals of the pastoral stage in ranch life; the exploitation of the soil by the raising of unrotated crops of corn and wheat in sparsely settled farming communities; the intensive culture of

the denser farm settlement; and finally the manufacturing organization with city and factory system.¹

Although Turner's pattern is not universally applicable, it portrayed a basic line of the nation's history. While forests vanished, skyscrapers rose; while prairie retreated, fields expanded; while rivers rolled, mills roared; while bison disappeared, sheep proliferated; while nature yielded, human beings marched forward.²

Modern urban industrial civilization made the conflict and interdependence between nature and society more complicated, which was also intertwined with some new social puzzles generated by the new productive relationship. Thus, for many American highbrow intellectuals in the late 19th century, it was necessary and urgent to reexamine the man and nature relationship, and the publication of *G&F* fulfilled this need. The magazine targeted some of the most imperative contemporary problems, endeavoring to offer an antidote to the present crisis and provide a blueprint for future development. Its perception of nature and the nature-human relationship derived from its social and intellectual soil.

Thus, the central question of this chapter is: what were the social context and the intellectual root of *G&F*? This question leads to the following questions: what were the new social problems of late 19th century America? What was the social response to these problems, and especially, to the new relationship between nature and human beings during this period? What were the repercussions of the broad scientific and

¹ Frederick J. Turner, "The Significance of the Frontier in American History," in *The Frontier in American History* (New York: Henry Holt and Company, 1920), 11.

² For example, in *Nature's Metropolis: Chicago and the Great West*, William Cronon argues that Chicago jumped from the frontier to the city omitting the stages in between. William Cronon, *Nature's Metropolis: Chicago and the Great West* (New York: Norton, 1991).

ideological trends, and more specifically, what were the ideas of George Perkins Marsh and Frederick Law Olmsted, the two most inspiring figures for the editors Charles S. Sargent and William A. Stiles, as well as the other contributors of *G&F*?

The United States in the late 19th century was at the crucial point of entering a new urban industrial age. Immigrants from abroad and from the countryside flooded into big cities, especially cities in the Northeast. Right before the Civil War, the urban population was only 19.8 percent out of the total population. In 1880, it reached 28.2 percent, and in 1890, there were already 35.1 percent of the American people living in cities, a percentage that would increase to 39.7 percent over the next ten years. In 1890, the total population increased by 25.5 percent, while the percentage of urban residents increased 56.4 percent. The city-ward motion was accelerated by the building of transcontinental railroads. In 1850, there were only 9,000 miles of railroad; in 1860, 30,000 miles; in 1870, 53,000 miles; in 1880, 93,000 miles; in 1890, 164,000 miles; and in 1900, 193,000 miles. The spreading railroad system made the transportation of raw materials and products go farther and faster. The major triumph of the second industrial revolution—the wide application of electric power—facilitated the incorporation of both heavy and light manufacturing industries, such as steel, mining, building, and also food and textile production. Along with the leading European nations, the United States was undergoing the transformation from laissez-

faire capitalism to a monopoly-prone economy. No place could escape from the woven web, not even the remotest village or the wildest forest.³

Industrialization encouraged the growth of urbanization, and vice versa. The extending transportation systems, such as railroad, subway, and trolley, propelled the sprawling outward of cities. The burgeoning factories required laborers flowing to cities from the countryside and foreign nations, and in the meanwhile, the new techniques and inventions of industrialization equipped cities with convenience and comfort that made urban residence more appealing. The new machines liberated more people from toiling on the land, and guaranteed even more an abundant food supply. The budding cities and urban inhabitants, reciprocally, promised an ever-rising market to absorb anything produced by factories and unceasingly stimulate new production.

Material wealth was not the only celebrated product of an urban industrial society. Cities, to a greater extent, also implied a higher level of civilization with their more sophisticated and diverse forms of culture and institutions. In an essay titled “Public Parks and the Enlargement of Towns” presented at the meeting of the American Social Science Association in 1870, Frederick Law Olmsted defied the resentment regarding cities as “a sort of moral epidemic” and the sentiment attempting to retreat toward “rural simplicity.” He considered urbanization, or in his own words “a strong drift townward,” to be infused with “elements of human progress,” and the rise of cities was connected with “the dying out of slavery and feudal customs, of priestcraft

³ Zane Miller and Patricia M. Melvin, *The Urbanization of Modern America: A Brief History*, 2nd ed. (San Diego: Harcourt Brace Jovanovich, Publishers, 1987), 79.

and government by divine right.” He exalted “the multiplication of books, newspapers, schools, and other means of popular education and the adoption of improved methods of communication, transportation, and of various labor-saving inventions.” He asserted that “no nation has yet begun to give up schools or newspapers, railroads or telegraphs, to restore feudal rights or advance rates of postage. King-craft and priestcraft are nowhere gaining any solid ground.” Therefore, Olmsted concluded, it was “more rational to prepare for a continued rising of the townward flood than to count upon its subsidence.”⁴

But even Olmsted could not deny the problems emerging along with the urban industrial society. Being prepared for the rise of cities implied a search for a remedy to cure urban illness. Behind the affluence of cities, there were slums, crimes, and poorly designed infrastructure. Underneath the prosperity of the industrial mode of production, there were strikes, the bankruptcy of small business and industries, and the severe national depression haunting the last decade of the 19th century. Within the cement forest, the grey and suppressive urban environment fermented a popular sentiment among its residents to get more contact with nature. Outside cities, farmers were infuriated and fighting to redeem their loss of economic and political autonomy in the increasingly incorporated society. Beyond the social milieu, the pressure from the shortage of natural resources was looming, for nature was much more quickly consumed by new need and new machines. Some of the tensions were universal in this transitional age, such as the confrontation between working class and capitalists,

⁴ Frederick Law Olmsted, “Public Parks and the Enlargement of Towns,” in *Civilizing American Cities: Writing on City Landscape*, ed. S.B. Sutton (New York: Da Capo Press, 1997), 56-7.

the complaints of stressed urban life and dreary urban circumstance, and the social diseases generated by urban poverty. Some of them, however, were entangled with American legends and imagination, and consequently led to some more specific anxieties and concerns.

New evil and new good, both generated by the turmoil of the emerging urban industrial society, were coexisting under the same sky in the late 19th century. From this complex social milieu, there derived complicated reactions to the novel system among its inhabitants, ranging from repugnance to admiration. In 1890, the effective outlet of American society, the frontier, was officially closed, which signaled the ultimate triumph of a half-century process of urbanization and thoroughly disenchanting the nation with the agrarian dream. In the West of the nation, there was much less arable land waiting to be grabbed. The East was already the territory of metropolises, crowded with people and dominated by factories. The West, which had been covered by prairies, occupied by forests, dotted with bison, and populated by native American tribes and sporadic pioneers just a few decades ago, was also incorporated into the omnipresent urban industrial network, creating new cities like Denver and Los Angeles and making the places outside the cities into dependent hinterlands. Rather than going to the West which seemed to mitigate all social and economic pressures, the new immigrants and the new generations had to learn how to strive upward in an urban industrial society.⁵

⁵ In *Nature's Metropolis*, Cronon examines how Chicago grew into a metropolis in less than half a century by incorporating its hinterland as well as the products and natural resources, such as grain, cattle, and timber, into its market, which consequently changed the landscape of the Midwest. Cronon, *Nature's Metropolis*.

Since the Jeffersonian period, many Americans had associated their national identity with her rural tradition. They believed that the best representative of their national virtue was farmers, as Jefferson claimed: “Those who labor in the earth are the chosen people of God.” And the foundation of American democracy was agriculture which was based on an immense land. The new continent promised that the traditional Arcadian ideal ingrained in western literature would become material reality. Thus, pastoralism served not only as the popular fantasy of a new Eden in this world, but also turned into a political and economic design: the Jeffersonian agrarianism based on laissez-faire government, community autonomy, a free market, and rural economy. The agrarian ideal would break down all the shackles of feudal monarchy and hierarchy in European nations, and at the same time, would keep the land of America rural and pure while the industrial fumes were pervading the cities of the old European continent. Yet in the 1840s, some insightful American intellectuals already sensed the collapse of this rural design and the conquest of industrialism. The whistle of the train abruptly entered the natural scene, and broke the tranquility and harmony in that mythic place called “Sleepy Hollow.”⁶

The intruding machine stirred up not only the eastern highbrows’ caution, but also farmers’ rage, unrest, and bewilderment. Once the backbone of American democracy, farmers had been trapped in multiple predicaments since the Civil War. Economically,

⁶ In *The Machine in the Garden*, Leo Marx presents his classical analysis of the intrusion of modern technology in nature and the reaction of American intellectuals to it. He analyzes the lasting myth of pastoralism in western and later American literature and political ideal. He argues that this ideology intends to construct a middle ground which is not too civilized while not too wild either. This is the place where Jeffersonian ideal society was based, and many American literati have been dreaming of. Leo Marx, *The Machine in the Garden: Technology and the Pastoral Ideal in America* (New York: Oxford Univ. Press, 1964).

they were the direct victims of the incorporating industrial system, struggling with lower prices of crops, higher expenses of agricultural supplies, and the worsened relationship between debtors (farmers) and creditors (bankers). Politically, they were threatened by the interference of the increasingly centralized government which was at odds with farmers' egalitarian ideal. Their rebellion against the industrial hierarchy made them seek self-respect, their fear of deepening dependence on the federal government, banks, and corporations motivated them to maintain their freedom, and their resentment of expanding cities spurred them to restore their disappearing communities. All of these moods embodied their deep insecurity when farmers' realized that their agrarian republicanism was being ruined and their golden age with spiritual honor and financial superiority was gone with it. From farmers who felt dislocated in an urbanized society, there came the most straightforward and conspicuous protest. A series of farmers' movements started from the 1860s' Greenback party, climaxed in 1892's People's Party, and waned after the president election in 1896. Underneath the miscellaneous items of farmers' requests, the core of the populist movement comprised two major themes: anti-monopoly and the redemption of community autonomy. Although they were seeking a paradise lost, this paradise was more political and economic than natural.

Besides farmers' rebellion, a more complicated and subtle discontent formed within the urban industrial system. Historian Jackson Lears points out that at the end of the 19th century, on both sides of the Atlantic, there was a "dissatisfaction with modern culture in all its dimensions: its ethic of self-control and autonomous

achievement, its cult of science and technical rationality, its worship of material progress.” The dissenters felt that the “real life” was lost in the “material comfort and moral complacency” of the “over-civilized” society from which the intense physical, emotional, and spiritual experience could not be attained. For the discontented intellectuals, the “authentic” alternatives to the unreal urban industrial life lay in various sources: medieval craftsmanship, a romantically simple life, Oriental culture, the martial or warrior ideal, or Catholic mysticism, art, and rituals. According to Lears, the central theme of that *fin-de-siecle* antimodernism stemmed from “revulsion against the process of rationalization first described by Max Weber—the systematic organization of economic life for maximum productivity and of individual life for maximum personal achievement, the drive for efficient control of nature under the banner of improving human welfare; the reduction of the world to a disenchanted object to be manipulated by rational technique.” Although the direct impulse of antimodernism was the new order and discipline established by the urban industrial society, antimodernists, to some extent, challenged the principles of modern science and the general commitment to it. Nature gained more attention from this group, for the alienation between nature and human beings was also a sign of the unreal life. After all, what life could be more authentic than living inside nature and following its laws?⁷

⁷ Lears argues that antimodernism was not simple escapism, but was often ambivalently mixed with “enthusiasm for material progress.” As its unintended consequence, it helped ease the “accommodation” to the new modern culture. Its major spokesmen “excised crucial cultural power,” and the “moral and psychic dilemmas” they experienced and discussed later “became common in the wider society.” T.J. Jackson Lears, *No Place of Grace: Antimodernism and the Transformation of*

Among most of the upper-middle and middle class majority, however, science was enshrined, the faith in its omnipotence was growing not diminishing, and the progress produced by the partnership of science and technology deserved congratulation. The urban middle class grumbled about the existing system, the government, the environment, and even their own life, but they aspired to reform, not subvert. They did not defy the fundamental value of the new urban industrial society. The progressive ethos of the late 19th century was shown in the mainstream optimism for reform, the commitment to science, the confidence in efficiency, and the pursuit of the public good. Although the Progressive Party was not founded until 1912, the progressive reforms emerged in the 1880s and made progressivism a national movement. The progressives intended to professionalize the society, clarify the government, improve the situation in slums, restrict the monopoly of corporations, widen the rights of women, Americanize the new immigrants, raise the welfare of the working class, and at the same time rationalize nature. In the essence of progressivism, its advocates emphasized the responsibility of government. They wanted the government to strengthen its regulation of politics, economy, society, and environment, both artificial and natural.

In the period when the relationship between nature and human beings was undergoing substantial change, many progressives felt it was pertinent to find a more proper position for nature in the new social order. Thus, one of the most important schemes of progressivism was the conservation movement, germinating even before

American Culture, 1880-1920 (New York: Pantheon Books, 1981; Chicago: The University of Chicago Press, 1994), 4, 5, xv, xvii. Citations are to the Univ. of Chicago Press edition.

the Civil War, forming into a national movement in the 1880s, and standing at the forefront of the progressive reforms during the Theodore Roosevelt administration.

No other nations in the old world witnessed such rapid or profound changes in primitive nature in less than three centuries. This process was paradoxical; at the time when Americans converted nature into civilization, the rich original nature also inspired Americans in two ways: one was aesthetic, and the other utilitarian. But since the Civil War when cities and factories accelerated to supplant the predominant position grasped by nature a few centuries ago, many American intellectuals found that both imaginations were at the edge of collapse.

One of the two imaginations was kindled by the rugged wild beauty of nature. Since the nation's founding years, many Americans believed that although their new nation lacked a long history and relics such as architecture, paintings, and literature, it had unparalleled glorious nature, of sublime beauty and suggesting freedom and fortitude. Furthermore, much of the beauty was still on public land which enabled common people to enjoy it as the wealthy did on their private estates. For many American intellectuals, the public access to natural beauty was an attribute of American democracy. But the coming of more people into the landscape eroded the celebrated natural beauty. Thus, patriotism combined with faith in democracy and appreciation of natural beauty created a force to defend this scenery from further defacement. Subsequently, in the last three decades of the 19th century, Yosemite Valley, Yellowstone, and Niagara Falls were established as national or state parks,

and hundreds of urban natural parks were established inside cities, which initiated a national movement to retain natural beauty.

The other imagination came from the abundance of natural resources which led to the optimistic and firm belief in their inexhaustibility prevalent until the end of the 19th century. Since the end of the Civil War, among some intellectuals, there had been a “forest famine fear” stimulated by the increasing need of timber in the process of accelerating urbanization and industrialization. The warning, in fact, had been made by George B. Emerson in the 1840s. A renowned educator and a self-taught natural historian from Massachusetts, Emerson was elected the president of the Boston Society of Natural History in 1836. The society proposed zoological and botanical surveys for the Massachusetts legislature. Emerson took charge of the botanical part and spent the following nine years travelling and investigating in the state when school was not in session. In 1846, the first edition of his *Report on the Trees and Shrubs Growing Naturally in the Forests of Massachusetts* was published. In this report, Emerson described the species as well as their habitats and economic value from firsthand observation and applied a natural system of classification. More importantly, this report was one of the earliest works which criticized the “wanton and terrible havoc” made on forests by axe, and suggested that these forests “would be better kept in reserve for his [the farmer’s] grandchildren.” It was in this report Emerson called for the management and preservation of forests in Massachusetts.⁸

⁸ George B. Emerson, *Report on the Trees and Shrubs Growing Naturally in the Forests of Massachusetts* (Boston: Commonwealth of Massachusetts, 1846), 2.

Emerson was one of the crucial figures in founding the Arnold Arboretum whose first director Charles Sargent established *G&F*. He was related to James Arnold, the founder of the Arnold fund

The later facts proved that Emerson had been too optimistic in his report by stating that “this profuse waste [of forest] is checked, but it has not entirely ceased.” The old problems grew worse while the new threats were looming. Both in the East and the West, the forest resource was still considered inexhaustible among farmers and timber-men, while simultaneously, more serious dangers were generated by industrial production. The need for timber was larger, the reasons to clear forests became more diverse, and the speed of deforestation was faster due to the invention of new machines. The construction of railroads on the one hand used a huge amount of timber for rail ties and, on the other hand, radically widened the access to the remotest forests. Millions of wandering sheep which supplied raw material for the textile industry were another fatal intrusion into the forest, especially in the West. Mining usually destroyed entire hillsides including their flora and fauna.

In the two decades after the Civil War, for some intellectuals, mainly from the East Coast, “forest famine” was not a vague omen but an approaching reality that American society had to face in the near future if the contemporary suicidal treatment of forests did not change promptly. These people’s voices did not go far enough to touch the general public, but their lobbying did gain some sympathy from government. In 1876, the US Agriculture Department appointed Franklin B. Hough, a physician and a natural historian from New York, to fill the new position of the office of special agent to investigate the situation of the nation’s forests, and in 1881, Hough

through his second marriage, and became one of the three trustees (and the crucial one) of the fund after the death of Arnold. He proposed to use the fund to establish an arboretum for the collection of native and exotic trees. In *Science in the Pleasure Ground*, Ida Hay discusses the role of Emerson in founding the arboretum. Ida Hay, *Science in the Pleasure Ground: A History of the Arnold Arboretum* (Boston: Northeastern Univ. Press, 1994).

became the first chief of the newly founded Division of Forestry in the Agriculture Department. Together with the forces advocating the preservation of natural beauty, the conservation movement was launched.

The themes of the conservation movement were multifaceted, and its tenets were complicated. It was concerned not only with wilder areas, but also with the urban environment. Its purpose was both utilitarian and aesthetic. The advocates of the movement looked for the intervention of government's power to manage the nation's forests, rivers, lands, garbage, sewer, and water for various reasons. The major projects of the conservation movement involved the establishment of forest reserves for efficient and wise uses, setting up national parks to preserve primitive beauty, building urban parks to enhance the urban physical and moral environment, and constructing and renovating sewer and water systems within and outside cities for the health of their residents.

Different aspects of the movement developed not on parallel tracks, but overlapped and interacted, especially in the last two decades of the 19th century when the conservation movement was still at a fluid stage. They found expression in certain common themes: science, expertise, government intervention, and public education. Their advocates seldom cared about only one issue, but in many cases placed their emphasis on diverse subjects. The outstanding example was Frederick Law Olmsted, who was not only the most famed urban park designer and spokesman of the nation in the second half of the 19th century, but also among the first who struggled to preserve Yosemite Valley and Niagara Falls. His interest in forestry brought him into close

cooperation with several important figures in promoting this new profession in the United States, such as Charles Sargent and Gifford Pinchot. His passion for beauty did not impair his concern with health and sanitation in the urban environment. At the most profound part of the conservation movement, it intended to rectify the relationship between nature and human being in a new social context.

This movement was consistent with the collective sentiment prevalent among the urban middle class that was derived from the complaints of the unsatisfactory urban environment and life. To a great extent, the conservation movement was the political embodiment of this shared social sentiment. People wanted to escape from the stressful reality, and the refuge they found was “nature,” or in many cases, the illusion of nature. Historian Peter Schmit indicates that in the last decades of the 19th century, America’s urban middle class undertook a “back to nature” movement, longing for visual and mental contact with nature as a solution or therapy for “the minor irritants of urban life.” Schmit draws a distinction between the “back to nature” movement and the “back to land” movement, which separates the “Arcadian myth” rampant among the urban middle class from the agrarian ideal held by farmers in the late 19th century. The former emphasized spiritual inspiration aroused by natural beauty, while the latter idealized a living from farming. To fulfill the “Arcadian myth,” the financial security that the urban middle class earned from the routine work in cities was not only indispensable, but also highly desired. Therefore, Schmit argues, nature meant almost everything for this movement, fresh air, clean water, birds, flowers, trees, mountains, forests, landscape gardens, nature writings, nature

education, outdoor recreation, country clubs, but not a source to maintain an individual's subsistence.⁹

To meet this popular sentiment, and more importantly, to encourage and instruct it, some environmental activities, publications and organizations came into being initiated by the most powerful spokesmen of this movement who were also the leaders of the conservation movement. Many of these activities emerged in the two decades after the Civil War when the trouble caused by urbanization and industrialization reared its head, but burgeoned in the last two decades of 19th century when the problems of the relationship between man and nature were growing more intense. Along with *G&F*, they shaped a national force to promote public environmental awareness.

One of the earliest environmental festivals was Arbor Day established by J. Sterling Morton, who would become the Secretary of Agriculture during the Cleveland administration. When Arbor Day started in 1872, Nebraska, it was a tree-planting festival, intending to promote this tradition among urban and country residents. It soon spread throughout the Midwestern states, from Nebraska to Kansas, Iowa, and Minnesota, and entered the Eastern states. By the time that Nathaniel Eggleston, the second chief of the division of forestry, was writing his pamphlet *Arbor Day Leaves* in 1893, this tree festival had been adopted by 44 states and territories. The character of Arbor Day evolved during its spreading, and it became a part of

⁹ Peter, Schmit, *Back to Nature: The Arcadian Myth in Urban America* (New York: Oxford Univ. Press, 1969; Baltimore: The Johns Hopkins Univ. Press, 1990), 4. Citations are to the John Hopkins edition.

nature education programs in schools. “The teachers and pupils of the schools were invited to unite in its observance, and instead of trees merely being planted as screens from winds, they were also planted for ornamental purposes and as memorials of important historical events and of celebrated persons, authors, statesmen, and others.” Thus, this festival functioned not only as a channel to learn trees and their uses, but also as a means of patriotic education.¹⁰

In 1873, a magazine under the title of *Forest & Stream*¹¹ (hereafter *F&S*) was published, focusing on another aspect of the natural environment and its relationship with human beings. Quite different from *G&F*, which featured plants and activities related to plants, such as botany, horticulture, forestry, and landscape architecture, *F&S* was mainly interested in hunting, fishing, and other outdoor recreation related to wild animals. In 1876, George Bird Grinnell was appointed the editor of *F&S*. In 1887 he, with Theodore Roosevelt, helped establish the Boone and Crockett Club which had a significant impact on the early conservation movement.

Both the magazine and the club were inspired by the pioneer spirit of masculine fortitude, forged by the nation’s unique frontier experience, which was, to a great extent, the symbol of American spirit embracing liberty, equality, and masculinity, and making Americans different from their European ancestors. In daily fight against an untamed natural environment, the pioneer spirit was also injected with the wildness of nature. When the latter was encroached upon by urbanization and industrialization, many people were afraid that the former was also missing among

¹⁰ Nathaniel Hillyer Egleston, *Arbor Day Leaves* (New York: American Book Company, 1893), 5.

¹¹ In 1930, *Forest and Stream* merged with *Field and Stream*.

younger generations. They warned that, on the one hand, American society would become physically feminine and mentally feeble by the comfort and luxury of urban life; on the other hand, wild game would be driven to extinction by market hunting, the invasion of millions of domesticated animals, especially sheep, and the disappearance of natural habitats. They believed that even though the frontier was vanishing, the American pioneer character could be maintained by such masculine activities as sportsmanlike hunting and fishing. They did not hide their contempt of market-hunting and even pot-hunting, and advocated a more refined hunting ethic: the so-called “fair chase” ideal, which was “the ethical, sportsmanlike, and lawful pursuit and taking of free-ranging wild game animals in a manner that does not give the hunter an improper or unfair advantage over the animal.” They argued that the man upholding this ethic was truly civilized.¹²

In the Constitution of the Boone and Crockett Club the leaders articulated their goals in succinct sentences. The primary object of the club was to “promote manly sport with the rifle.” The second object was to “promote travel and exploration in the wild and unknown, or but partially known, portions of the country.” The third was to “work for the preservation of the large game of this country, and, so far as possible, to further legislation for that purpose, and to assist in enforcing the existing law.” The fourth one was to “promote inquiry into, and to record observations on, the habits and natural history of the various wild animals,” and the last was to “bring out among the

¹² The Boone and Crockett Club website, http://www.boone-crockett.org/about/about_overview.asp?area=about. (accessed on January 7, 2008)

members the interchange of opinions and ideas on hunting, travel and exploration; on the various kinds of hunting rifles; on the haunts of game animals, etc.” Their mission was to join the restoration of the pioneer spirit with the preservation of wild animals and the natural environment where they were living, not only for the present but also for future generations.¹³

Another relevant environmental organization appearing during the time when *G&F* was published was the Sierra Club, founded in 1892, with the celebrated naturalist and writer John Muir as president. Its establishment was inspired by the Appalachian Mountain Club which came into being in 1876, the nation’s earliest club interested in outdoor recreation. But the Sierra Club was more engaged in the preservation of the beauty of wilderness because of the unique landscape of California and president John Muir’s pious love of wild nature. For Muir, the “Range of Light,” the Sierra Nevada in California, was the temple of nature:

Every rock seems to glow with life. Some lean back in majestic repose; others, absolutely sheer, or nearly so, for thousands of feet, advance their brows in thoughtful attitudes beyond their companions, giving welcome to storms and calms alike, seemingly conscious yet heedless of everything going on about them, awful in stern majesty, types of permanence, yet associated with beauty of the frailest and the most fleeting forms; their feet set in pine-groves and gay emerald meadows, their brows in the sky; bathed in light, bathed in floods of singing water; while snow-clouds, avalanches, and the winds shine and surge and wreath about them as the years go by, as if into these mountain mansions Nature had taken pains to gather her choicest treasures to draw her lovers into close and confiding communion with her.¹⁴

The value of nature in Muir’s description and his followers’ advocacy transcended its economic profit, and reached an aesthetic and spiritual level. This

¹³ As quoted in George Bird Grinnell, *American Big Game in Its Haunts*, the Book of the Boone and Crockett Club (New York: *Forest and Stream* Publishing Company, 1904), 487.

¹⁴ John Muir, *The Mountains of California* (New York: The Century Co., 1894), 4, 6.

value also featured some important environmental activities occurring within cities, such as the urban park movement. For the latter, the climax was the Boston metropolitan park system, and almost all the leaders of that city's program for parks wrote for *G&F*.¹⁵

Both the political reforms and the social sentiment reflected the intellectual trends of the society which had their roots in the western intellectual tradition and were catalyzed by the new social changes. The most penetrating influence on the aesthetic perception of nature in the "back to nature" and the conservation movements came from Romanticism. Historian Donald Worster points out that the Romantics "were the first great subversives of modern times." Their targets included "the accepted notion of what science does; the values and institutions of expansionary capitalism; the bias against nature in western religion."¹⁶ This artistic, literary, and intellectual movement emerged in 18th century Europe, calling people to seek inspiration from nature and to experience nature through emotion.

After Romanticism crossed the Atlantic, its representatives in the United States, the transcendentalists, on the one hand, agreed with the Romantic vision of nature as an interdependent unity and a source of human imagination; on the other hand, they emphasized the active and positive force of the human mind "that gives coherence and beauty to an imperfect world." The leading transcendentalist Ralph Waldo Emerson "was much more intent on assigning to mankind an essential, ongoing,

¹⁵ For more details, please see the fourth chapter.

¹⁶ Donald Worster, *Nature's Economy: A History of Ecological Ideas*, 2d. ed. (New York: Cambridge University Press, 1994), 58.

creative role in the world,” rather than accepting the doctrine of Judaism and Christianity that the world was perfect at its beginning as the creation of God. By doing this, Emerson glorified the position of an individual person, and at the same time, allowed the existence of the intimate connection between humans and nature. Worster argues that Emerson’s interpretation of nature became “definitive for perhaps the majority of the new college generation, at least in New England.”¹⁷ And it also found a reconcilable platform for science and the Romantic aesthetic values.

In fact, Romanticism was not all against science, but challenged the idea that rationality, the foundation of the modern science, was the only means to perceive nature, and science was the only authority to display truth. According to Worster, one of the recurrent themes of the Romanticism was “a fascination with biology and the study of the organic world. Romantics found this field of science a modern approach to the old pagan intuition that all nature is alive and pulsing with energy or spirit. No other single idea was more important to them.”¹⁸ This science was fundamentally different from the laboratory work or mathematical equations. Its objects were animate entities and their surroundings from the “organic world,” and it required to go deep into nature and have close contact with everything in nature.

At the time when the Victorian scientific spirit, which embraced rationality, progress, and technology, was celebrated in the new urban industrial age, many American intellectuals sought to combine the romantic perception of nature with scientific vision and approaches. George Perkins Marsh and Frederick Law Olmsted,

¹⁷ Worster, *Nature’s Economy*, 104, 103.

¹⁸ Worster, *Nature’s Economy*, 82.

who ranked among the most prominent figures in shaping early American environmental awareness, were profoundly affected by this broader intellectual context, and simultaneously encouraged this pursuit.

Both of them believed that the more civilized future would enable human beings to get along with nature in a more respectful and close way. Like Ralph Emerson, they placed more emphasis on humans' active role in transforming nature, and had more optimistic belief in the development of modern science and the power of reform. Although they never denied the connection between nature and humanity, and on the contrary, tried to make other people aware of this connection, neither of them regarded humans as a part of the unity of nature. For them, this connection could be economically useful, physically healthful, spiritually refreshing, or aesthetically inspiring, but they did not claim a kinship of mankind with other natural species.

In his book, *Man and Nature*, Marsh made his point clear that man was "above nature," not "of nature," even though it was crucial to learn the law of nature and respect it. In Olmsted's case, the difference was more subtle. His aesthetic value was completely Romantic, and all his major works manifested the appeal of natural beauty. He felt uneasy with the alienation of modern society from nature, and devoted his career to retaining people's physical and spiritual contact with the natural world, but he attempted to connect them with the beauty of nature or their own experiences, not to integrate themselves with nature. Ultimately, Marsh and Olmsted were both anthropocentric, concerned with human welfare, not nature's.

Although identical at some points, their understanding of nature and culture was also distinct. First of all, the questions raised by Marsh and Olmsted were different. Marsh asked how the interaction between humans and the natural environment had affected the development of history, and his fundamental goal intended to rectify the troublesome man and nature relationship. Olmsted, however, was mainly concerned with contemporary society. His major purpose was to harmonize and civilize the social relationship with the assistance of nature. Marsh addressed the more utilitarian side of nature, while Olmsted gave more attention to the aesthetic aspect. In *G&F*, these two concerns merged into one: how to orient the position of nature in an urban industrial society in order to sustain the latter's progress? One of the major contributions of *G&F* was that it incorporated these two men's ideas in one forum, and discussed and advocated them through different topics. Their thought was the most inspiring intellectual source for *G&F*, although Marsh was not involved in the magazine directly and Olmsted usually backed it behind the curtain. Many of the essays published in the magazine could have been written by them. Thus, to better understand the magazine, it is necessary to know Marsh, Olmsted, and their thought.

George Perkins Marsh was born in 1801 in Woodstock, Vermont. His father was the leading lawyer of Woodstock, and it became natural for Marsh to enter the field of law when he grew up. He graduated from Dartmouth College in 1820 and passed the bar examination in 1825. For the next thirty-five years, Marsh was trapped in multiple predicaments caused by his legal and business career. He found his personality not congenial to the practice of law, so he left it in 1842. According to his biographer

David Lowernthal, Marsh had invested in “every local enterprise,” “bred sheep, ran a woolen mill, built roads and bridges, sold lumber, speculated in land, chartered a bank, mined a marble quarry,” and finally was bankrupted. Although he could read in twenty languages and “remembered almost all he read, saw, and heard,” he was obviously inept at making money.¹⁹

But compared to what he succeeded in doing, his failure in business was trivial. He had a real genius in languages, fluently speaking and using Scandinavian languages and half a dozen other European ones. He was also fascinated with the evolution of languages and was one of the great philologists, gaining nation-wide renown. He was obsessed with art, literature, and history, and was one of the most powerful hands pushing forward the establishment of the Smithsonian Institution. Lowernthal points out that Marsh “championed the Smithsonian’s publications, its exploring expeditions, its worldwide collecting endeavors, and its pioneering surveys of weather, geology, and American prehistory.” His activities in shaping the Smithsonian enforced his belief in writing a new history of the United States: a history of common people, not of a handful of heroes and rulers.²⁰ And his advocacy strikingly resembled the principles of social history which did not emerge until the 1960s.

His political duties enabled him to see half of the world, not as a tourist skimming over the surface, but as a scholar intimately observing and contemplating history, man,

¹⁹ David Lowernthal, Introduction to *Man and Nature*, by George Perkins Marsh, ed. David Lowernthal (Seattle: Univ. of Washington Press, 2003), xix, xviii.

²⁰ Lowernthal, xx.

and nature in a circumstance outside his own nation. He served as a congressman from Vermont beginning in 1843, and in 1849, he was appointed as American envoy to Turkey. Firmly believing in democracy, he had sympathy with Europe's revolutionaries and aided them. In the meanwhile, he travelled in Egypt, Palestine, central Europe, and Italy, collecting flora and fauna for the Smithsonian. When he went back to the United States in 1854, he faced financial difficulty, but earned even greater fame in philology. Fortunately, a new government appointment rescued him from the pecuniary mire and created an environment for him to work on one of the greatest environmental works in the world: *Man and Nature*. Marsh left his Vermont home, and spent the next two decades in various cities of Italy as the U.S. ambassador.

In the decades before he went abroad, Marsh witnessed the radical transformation of the Vermont landscape from infinite forests to denuded fields and pastures caused by reckless and wasteful cutting:

The changes, which these causes have wrought in the physical geography of Vermont, within a single generation, are too striking to have escaped the attention of any observing person, and every middle-aged man, who revisits his birth-place after a few years of absence, looks upon another landscape than that which formed the theatre of his youthful toils and pleasures. The signs of artificial improvement are mingled with the tokens of improvident waste, and the bald and barren hills, the dry beds of the smaller streams, the ravines furrowed out by the torrents of spring, and the diminished thread of interval that skirts the widened channel of the rivers, seem sad substitutes for the pleasant groves and brooks and broad meadows of his ancient paternal domain.²¹

²¹ George Perkins Marsh, "Address Delivered before the Agricultural Society of Rutland County," 30 September 1847, *The Evolution of American Conservation Movement, 1850-1920*, the digital archive of American Memory, Library of Congress, 18, 19.

http://memory.loc.gov/cgi-bin/ampage?collId=amrv&fileName=v02//amrvvgv02.db&recNum=2&itemLink=D%3Fconsrvbib%3A1%3A.%2Ftemp%2F%7Eammem_DiPS%3A%3A&linkText=0 (accessed on April 24, 2008)

Being an “observing person,” Marsh was sensitive to all the changes, on which he possessed some complicated feelings, not completely negative, mixed with some criticism, some regret, some patriotic pride, and some celebration of man’s power. In 1847, he delivered an address before the Agriculture Society of Rutland County, Vermont, only a year after George B. Emerson submitted his forest survey in Massachusetts. This address revealed Marsh’s social and environmental views shaped in the years before he had intensive experience with the old world.

Marsh’s words in this address were full of enthusiasm for the victory of his fellow men in the confrontation between “civilized man and barbarous uncultivated nature.” “This marvelous change,” Marsh wrote, “which has converted unproductive wastes into fertile fields, and filled with light and life, the dark and silent recesses of our aboriginal forests and mountains, has been accomplished through the instrumentality of those arts, whose triumphs you are this day met to celebrate, and your country is the field, where the stimulus of necessity has spurred them on to their most glorious achievements.” And he believed, like most of his contemporaries, that the exploitation and cultivation of wild nature was the divine right endowed by the Creator.²²

He divided the history of human society into three stages: savage, “pastoral life” (nomadic life), and agriculture. Marsh despised the “savage” way of consuming nature, and claimed that “the arts of the savage are the arts of destruction; he desolates the region he inhabits, his life is a warfare of extermination, a series of

²² Ibid., 3, 4.

hostilities against nature or his fellow man, and his labors are confined to the fabrication of weapons for slaying or repelling other tribes that intrude upon his hunting grounds, or of engines for ensnaring or destroying the wild animals on which he feeds.” Pastoral life improved the relationship between nature and human beings a lot, but it was only a step toward civilization. Agriculture signaled the true coming of civilization, which “on the contrary, is at once the mother and the fruit of peace. Social man repays to the earth all that he reaps from her bosom, and her fruitfulness increases with the numbers of civilized beings who draw their nutriment and clothing from the stores of her abundant harvests.” He argued that civilization compensated for nature’s loss of various species with domesticated animals and plants, which made a “more fruitful world of vegetable and animal life adapted to the convenience of him [mankind] who was now called to reign over it.” The colonization of the new world by the white European not only civilized the wild savage land, but also facilitated the exchange of species which dramatically enriched the natural world on both sides of the Atlantic. Furthermore, he argued that there was still a vast territory with its flora and fauna on the earth waiting to be discovered by his fellow men, such as China, and the natural resources there were destined to be used by America. He tempted his audience that “we may well imagine that our fields and fruityards and gardens are destined to acquire new sources of vegetable luxuriance and wealth and beauty from regions yet untrodden by Christian feet.”²³

²³ Ibid., 6, 15.

Marsh also noticed the rising trend of industrialization, the rise of the “mechanic arts” as he called it, and heartily embraced its power. The maturity of these “arts” was another great leap in the development of civilization, and Marsh claimed that “as they are the last of the industrial arts to be fully developed, so are they the ultimate material means, by which the power, and wealth, and refinement of social man are carried to their highest pitch.” He analyzed the difference between agricultural and industrial production. First of all, the forces applied by the two productions were not completely the same. Agriculture relied on the “organic forces” of nature, while industrial production employed not only the organic but also the “more powerful” inorganic forces. Second, the products of the two productions were substantially different. The final products of the former were, to a great extent, still natural, while the results of the latter were essentially artificial in “the form, character, and properties.” “Human contrivance” was the determining factor in the process of industrial production. Aided by machines, people could produce artifacts “as diversified as the wants and the inventive capacity of man.”²⁴

Marsh saw “neither interference nor competition” between the two productions; on the contrary, he believed that they complemented each other. Industrial production consumed a much larger amount of the products of agriculture. It fortified human power by a thousand times, and made people depend less on the uncertain nature. It was also “constantly discovering new uses, and thereby extending the demand for the raw material.” Marsh’s example for this argument was the inconceivable increase in

²⁴ Ibid., 21.

the value of “vegetable fibrous substance” led by the paper industry. The improved transportation networks, “which bind our wide confederacy together, unite our inland seas with the ocean--the common boundary and highway of nations, bring every producer within reach of a market, and tend to equalize the value of lands in all parts of our wide domain,” were also the outcome of the “mechanic arts.” The capacity of this new form of production made the development of civilization more promising, which substantially multiplied and intensified the exploitation of nature, especially in America, “a country whose yet undeveloped natural resources are so boundless and diversified.” Therefore, “it is through the mechanic arts alone,” Marsh summarized, “that we can become truly independent of foreign nations, and establish an interchange between the producer, the manufacturer, and the consumer, which shall increase the wealth and lighten the burdens of each, by retaining among ourselves the net profits of labor, and thus avoiding the drain of the precious metals for supplies.”²⁵

Nevertheless, his passion for civilization did not blind him to the approaching dangers driven by human behaviors. Although this paean to progress played such a harmonious melody with the tempo of the era, Marsh voiced something deviant and uneasy. He indicated that if cutting had been necessary and wise for their ancestors, forests were no longer an encumbrance in their own generation. Marsh warned that there had been “undoubtedly already a larger proportion of cleared land in Vermont than would be required,” and if people did not cease the reckless cutting, they would deprive their descendents of their valuable resources. In this address, Marsh analyzed

²⁵ Ibid., 22-4.

connections between forest and climate, soil, and rivers. He advocated that there ought to be “a better economy in the management of our forest lands.” In many European nations, forests had been managed and regulated by government and law; but Marsh thought that, in the United States where “public opinion determines, or rather in practice constitutes law, we can only appeal to an enlightened self-interest to introduce the reforms, check the abuses, and preserve us from an increase of the evils I have mentioned.”²⁶ Overwhelmed by the excessive praises of civilization of the day, this short paragraph of environmental caution was feeble and indistinct, but as Lowenthal points out that it was the “genesis of *Man and Nature*.”²⁷

The five years of living and traveling around the Mediterranean had a salient impact on shaping Marsh’s view of man and nature. He marveled at the awesome changes in the landscape forged by human beings, but also gasped at the catastrophic destruction caused by the same agency. Marsh noticed that environmental degradation was always followed by the ruin of civilization, which led him to more cautious scrutiny of the man-nature relationship in his home nation. This new awareness was expressed in an 1857 report on fisheries in which the earlier fulsome praise of human triumph subsided, replaced by the more sober and critical examination of the havoc imposed on nature by human beings. Lowenthal regards this report as “a prelude in miniature to *Man and Nature*.”²⁸

²⁶ Ibid., 18, 19.

²⁷ Lowenthal, xxiv.

²⁸ Ibid., xxv.

Marsh started writing *Man and Nature* in Italy in 1862 and finished it in 1864. The book was published in the same year and was an epochal work. As the original title “Man the Disturber of Nature’s Harmonies” proposed by Marsh suggested, the theme of the book argued that man was not a part of nature, and his actions had intentionally and unintentionally upset the economy of nature in a fundamental way. Marsh opened the book with a shocking picture revealing the connection between the decline of ancient Rome and the desolation of its natural environment. Throughout, the book depicted identical scenes occurring in various periods and civilizations in the old world, but his ultimate concern was his own nation, the land with its natural resources which had been thought boundless by his fellowmen. He did not ask them to cease disturbing of nature for there was no way to stop it, but he argued that humans should modify nature in a more careful, wise, and regulated way in order to sustain the progress of human civilization.

In *Man and Nature*, Marsh assessed the transformations imposed on nature by civilization in a sharply different way from what he had done in the address delivered before the Agricultural Society of Rutland County almost two decades earlier. Rather than thinking that “her [nature’s] fruitfulness increases with the numbers of civilized beings who draw their nutriment and clothing from the stores of her abundant harvests,” he argued that, as man “advances in civilization, he gradually eradicates or transforms every spontaneous product of the soil he occupies.” He pointed out that the human achievement could not equalize the loss of nature, and neither could the domesticated animals and plants keep the balance of the economy of nature as the

natural species did. This recognition also led him to a different attitude toward the so called “savages.” In his 1847 address, Marsh had regarded the existence of savages as “a warfare of extermination, a series of hostilities against nature or his fellow man,” but in *Man and Nature*, he noted that “although these humble tribes and individuals sacrifice, without scruple, the lives of the lower animals to the gratification of their appetites and the supply of their other physical wants, yet they nevertheless seem to cherish with brutes, and even with vegetable life, sympathies which are much more feebly felt by civilized men.” The “savages” were aware of “a certain community of nature between man, brute animals, and even plants.” Civilized man did not bring peace or harmony to nature; on the contrary, he commenced “an almost indiscriminate warfare upon all the forms of animal and vegetable existence around him.”²⁹

The question for Marsh, however, was not whether humans should or should not modify nature for their progress. He merely found it was necessary for people to recognize that there must be “a certain measure of transformation of terrestrial surface, of suppression of natural, and stimulation of artificially modified productivity.” The major defect of civilization was that man usually “exceeded” this measure. The destruction man inflicted on nature finally led to the revenge of nature by “letting loose upon her defaced provinces destructive energies hitherto kept in check by organic forces destined to be his best auxiliaries, but which he has unwisely dispersed and driven from the field of action.” In *Man and Nature*, Marsh thought that nature

²⁹ Marsh, *Man and Nature*, ed. David Lowenthal (2003), 40, 39; for the quote from Marsh’s address, see n. 20.

had its own way to distribute its various elements in order to attain the balance. The destruction of one element usually led to a chain of calamities. When deforestation occurred by excessive felling, what disappeared were not only trees but also water stored by trees and soil held by them. It would not only cause a timber famine, but also drought and flood. Human activities were not making the world more suitable for their living, but would very likely change the earth into “an unfit home for its noblest inhabitant, and another era of equal human crime and human improvidence, and of like duration with that through which traces of that crime and that improvidence extend, would reduce it to such a condition of impoverished productiveness, of shattered surface, of climatic excess, as to threaten the depravation, barbarism, and perhaps even extinction of the species.” The death of nature would be the end of civilization. Thus, Marsh warned that “it is evidently a matter of great moment,... to the general interests of humanity, that this decay should be arrested.”³⁰

But how to arrest the decay? Although expressing a radically different attitude toward the relationship between primitive people and nature, Marsh never advocated giving up civilization. His faith in science never shifted, neither did his confidence in the progress of human intelligence and morality along with the advancement of civilization. He claimed:

It is, on the one hand, rash and unphilosophical to attempt to set limits to the ultimate power of man over inorganic nature, and it is unprofitable, on the other, to speculate on what may be accomplished by the discovery of now unknown and unimagined natural forces, or even by the invention of new arts and new processes. ...nothing in the way of mechanical achievement seems impossible, and it is hard to restrain the imagination from wandering forward a couple of generations to an epoch when our descendants shall have

³⁰ Marsh, *Man and Nature*, 38, 43, 46.

advanced as far beyond us in physical conquest, as we have marched beyond the trophies erected by our grandfathers.³¹

Even so, Marsh doubted that the damaged natural world could recover from its decline. He cautiously said that “among the mysteries which science is yet to reveal, there may be still undiscovered methods of accomplishing even grander wonders...” Thus, it was critical for the old continent to have “great political and moral revolutions in the governments and peoples.” And for the new one, like his home nation, people should awaken to restrict their excessive and thoughtless exploitation of nature. Marsh warned that “the world cannot afford to wait till the slow and sure progress of exact science has taught it a better economy.... And the teachings of simple experience, on topics where natural philosophy has scarcely yet spoken, are not to be despised.” Striving for reforms and possessing perfect optimism in reforms, Marsh attempted to adjust the relationship between man and nature for the sake of human beings themselves.³²

Frederick Law Olmsted would have agreed with Marsh on his view of civilization and his adherence to science and reforms, although he focused on the other side of nature: its beauty and the connection with society. Olmsted was born in 1822. His father, John Olmsted, was a dry-goods store owner in Hartford, Connecticut, who did not make an exceptional fortune and was moderately educated, but had enough prosperity and more than enough affection to indulge his oldest son’s fantasy and idling. His birth mother died when he was five years old, and his step-mother was fair

³¹ Marsh, *Man and Nature*, 44.

³² Marsh, *Man and Nature*, 44-5, 52.

but probably could not love little Fred as much as his younger brother and her own children. Olmsted spent his childhood in various boarding schools, stayed with different relatives, and travelled a lot with his parents who enjoyed country scenery. He did not disappoint people who try to picture a nature-loving boy. Strict academic training never managed to approach Olmsted's intellectual and mental world. His memory of schooling with clergymen was in no way pleasant, which consequently left him with a distaste for organized religion as well as its rituals and practice. Wandering in the woods and fields of picturesque New England, Olmsted was intrigued by everything in nature. His taste and character were shaped in pastoral scenery and abundant liberty which were reflected in his landscape works in later years.³³

He failed to go to Yale when he was sixteen years old because of weak eyes. Thus, the last chance for the constraints of formal education to fetter this drifting spirit was lost. Olmsted showed no special interest in business, but did not know exactly what he wanted to do either. Along with increase in age, the scope of his roaming also expanded. The boundary of New England could not limit his still youthful feet. When he was 21 years old, Olmsted took the first voyage of his life from the port of New York, as a seaman on the trade ship Ronaldson, heading toward China. Obviously not motivated by the possible profit acquired through overseas trading, Olmsted merely craved some adventure. His first and only visit to China was confined to a small area of Guangdong Province. He was impressed by the courtesy and hospitality of the

³³ Most biographical information on Olmsted, if not specially noted, is from Laura Wood Roper, *FLO: A Biography of Frederick Law Olmsted* (Baltimore: The Johns Hopkins Univ. Press, 1973).

Chinese people, but described nothing of Chinese landscape and probably learned nothing about Chinese landscape gardens either.

This trip did not help him cultivate any focused interest. With “scattered enthusiasm,” Olmsted persuaded his indulgent father to buy a farm for him on Staten Island in 1848, where he tried to undertake a career in scientific farming. For a while, he devoted himself to absorbing knowledge of agriculture and horticulture, but a new curiosity distracted him again, and he left for the second abroad trip with his brother and another friend in the growing season of his crops in 1850. Neither exotic nor too remote for a New Englander like Olmsted, England was the destination this time.

This six-month trip enabled him to see both poverty and prosperity at the seat of the world’s most powerful empire. In 1852, he compiled his journals and articles written during the trip and published his first book, *Walks and Talks of an American Farmer in England*. Calling himself a farmer, Olmsted was not interested in agriculture exclusively, but pondered various aspects of British society. In this book, for the first time, Olmsted expressed his interest in public parks and their social function in an emerging urban society. This concern was inspired by a new park built on an abandoned farm in the city of Birkenhead, designed by Joseph Paxton, one of the prominent British landscape architects. What obsessed Olmsted in this park were two things: its picturesque scenery and its free use by everyone. The former theme was congenial to Olmsted’s own aesthetic taste and love of nature, and the latter concurred with Olmsted’s adamant democratic ideal. In this “thick, luxuriant, diversified garden,” Olmsted experienced “five minutes of admiration, and a few

more spent in studying the manner in which art had been employed to obtain from nature so much beauty,” then he admitted that “in democratic America there was nothing to be thought of as comparable with this People’s Garden.” So impressed by the scene and people he saw in the park, Olmsted declared: “The poorest British peasant is as free to enjoy it in all its parts as the British queen. More than that, the baker of Birkenhead [who insisted that Olmsted and his companions had to visit the park before they left the town] has the pride of an owner in it.”³⁴

The second volume of this book came out several months later in 1852 and was dedicated to Andrew Jackson Downing, who died in the wreck of a steamer while travelling on the Hudson River when he was only 37 years old. Olmsted had made acquaintance with Downing in 1846 through Luther Tucker, a publisher and editor who invited Downing to be the editor of a new monthly magazine *The Horticulturist and Journal of Rural Art and Rural Taste: Devoted to Horticulture, Landscape Gardening, Rural Architecture, Botany, Pomology, Entomology, Rural Economy*. Quite different from Olmsted, Downing had arrived at his interest in horticulture and landscape gardening when he was in his teens. Born in 1815, Downing was a son of a nurseryman in Newburgh, New York, which was still a village on the west bank of the Hudson River in the years of Downing’s childhood. When he was sixteen years old, he decided to drop school and joined the family business. In 1841, he published *A Treatise on the Theory and Practice of Landscape Gardening*, which was not only the first work in its field in the United States, but also built the theoretic foundation

³⁴ Frederick Law Olmsted, *Walks and Talks of an American Farmer in England* (New York: G. P. Putnam and company, 1852), 79, 81.

for the fledgling profession in this nation. This book achieved an immediate and huge success. With his thriving nursery, Downing's career peaked in the decade of 1840s.

Downing's biographer Judith Major indicates that Downing's ideas experienced a process of Americanization in which he transferred his fascination with European aesthetic traditions, especially expressed on England's huge landscaped estates, to an affection for and admiration of America's simple rural farmsteads. Major argues that in the process, Downing "offered men and women a message of moderation and simplicity, encouraging them to practice economy, to use America's rich natural resources wisely yet artificially—to be content with a little cottage and a few fine native trees." Downing ultimately accommodated a republican as opposed to an aristocratic rural art." His landscape theory was consistent with his republican ideal which, in its essence, emphasized two themes: liberty and equality.³⁵

Living in a period in which the majority of its population was still rural, Downing assumed that both his clients and readers were mainly rural inhabitants. But like many sensitive intellectuals, he discerned the unavoidable trend of urbanization and revealed his concerns in editorials written for *The Horticulturist* in the early 1850s. His obsession with rural landscape did not make urban civilization completely repulsive for him. In an editorial published in 1851, Downing wrote that "it is needful in civilized life for men to live in cities," but "it is not, [...] needful for them to be so miserly as to live utterly divorced from all pleasant and healthful intercourse with gardens and green fields." He made it clear that public parks were an element of a

³⁵ Judith Major, *To Live in the New World: A. J. Downing and American Landscape Gardening* (Cambridge, Mass: MIT Press, 1997), 5.

civilized city as important as libraries, art galleries, or outdoor sculptures, especially for “republican America.”

Even upon the lower platform of liberty and education that the masses stand in Europe, we see the elevating influences of a wide popular enjoyment of galleries of art, public libraries, parks and gardens, which have raised the people in social civilization and social culture to a far higher level than we have yet attained in republican America. And yet this broad ground of popular refinement must be taken in republican America, for it belongs of right more truly here, than elsewhere.³⁶

Although Downing was one of the first advocates of a big public park for New York City, he died too early to see how overwhelming the tendency of urbanization and industrialization would become. But his ideas left two essential principles for succeeding landscape architects, especially for Olmsted, to follow. One was his taste for natural style in landscape design, which emphasized learning from nature, cooperating with nature, but at the same time, refining nature. And the other one was his social ideal which intended to make nature’s beauty reachable for everybody, for he believed it was part of the civilized life.

Olmsted did not immediately take the place in landscape architecture left by Downing’s death. He accepted a new job to write a series of articles on the South for the *New York Daily Times*, and was ready to inspect the “cotton kingdom” which was still under the institution of slavery, and promised to give an objective account of the South. Olmsted firmly believed that slavery, considered morally, “utterly, but not uniquely, evil. The bondage in which priests and churches held men’s spirits was as bad, and the lot of American merchant seamen, English rural labors, Irish tenant farmers, and slum dwellers North, South, and abroad was as cruel and helpless and

³⁶ Andrew Jackson Downing, “The New-York Park,” *The Horticulturist and Journal of Rural Art and Rural Taste* 6, No. 8 (1851): 346.

degraded as that of slaves.”³⁷ He could not agree with abolitionists on immediate freedom for slaves, not because the blacks were an inferior race, but because they needed a long education process to learn how to think and act for themselves for they had been slaves for too long. His observation in the South confirmed these ideas; thus, in his articles, he called for “FAIR PLAY FOR THE NEGRO.”³⁸

The writing experience fortified Olmsted’s interest in literary work, so he lingered in this field for several years until 1857 in which year he captured a grand opportunity, becoming the superintendent of a new Central Park that was to be built in New York City. It was the first big urban park in the United States, standing right in the center of the city. The next year, Olmsted accepted an invitation from Calvert Vaux, a former partner of Downing, to collaborate on a plan for the design competition of the park. The “Greensward” plan prepared by them won the first prize out of thirty three submitted, and the two genius landscape architects set out to use nature’s materials to compose a living landscape painting on a 780-acre urban wasteland.

Although he believed that urbanization was a trend toward further progress that no one could and should halt, like many of his contemporaries, Olmsted was concerned with the “disease and misery,” and the “vice and crime” of urban life. “This would be a very dark prospect for civilization,” Olmsted wrote, “if it were not that modern science has beyond all question determined many of the causes of the special evils by which men are afflicted in towns, and placed means in our hands for

³⁷ Roper, *FLO*, 84-85

³⁸ Frederick Law Olmsted, “Yeoman,” *New York Daily Times*, 13 February 1854, quoted in Roper, *FLO*, 91.

guarding against them.” Science, however, only cured physical diseases; it lacked potency to uplift urban people’s moral and spiritual strength. What worried Olmsted the most was the loss of “communicativeness” caused by commercial competition, factory disciplines, and crowded urban circumstance. He explained this problem by applying a simple example that when people were walking on the narrow populated urban street, “to merely avoid collision with those we meet and pass upon the sidewalks, we have constantly to watch, to foresee, and to guard against their movements.... Our minds are thus brought into close dealings with other minds without any friendly flowing toward them, but rather a drawing from them.” Thus, what Olmsted wanted to construct was a place where people could be drawn together, sharing some common experience without any sort of competition.³⁹

Central Park, from every angle, was the masterpiece conveying Olmsted’s vision of nature, art, city, and civilization. Ideally, art and nature cooperated to create a peaceful rural sphere inside the city, giving urban residents visual enjoyment and physical relaxation, providing temporary freedom from restraints and stress, serving as a source of refreshment. Practically, it was a part of the urban landscape, tightly related with the health and beauty of the urban environment, and directly participating in urban residents’ daily life—their recreations, gatherings, and educational programs. Twelve years after the park’s construction, Olmsted stated proudly in his address, “Public Parks and the Enlargement of Towns,” delivered to the American Social Science Association:

³⁹ Olmsted, “Public Parks and the Enlargement of Towns,” 64-65.

Consider that the New York Park and the Brooklyn Park [Prospect Park, another major piece designed by Olmsted and Vaux] are the only place in those associated cities where, in this eighteen hundred and seventieth year after Christ, you will find a body of Christians coming together, and with an evident glee in the prospect of coming together, all classes largely represented, with a common purpose, not at all intellectual, competitive with none, disposing to jealousy and spiritual or intellectual pride toward none, each individual adding by his mere presence to the pleasure of all others, all helping to the greater happiness of each. You may thus often see vast numbers of persons brought closely together, poor and rich, young and old, Jew and Gentile.⁴⁰

To create such a scene was the initial motive driving Olmsted to build urban parks and was also the ultimate goal he attempted to achieve. Just as he thought that the black had equal capability and intelligence as the white, Olmsted believed that appreciating natural beauty was not a privilege confined to any specific class or race or religion but was an ability possessed by everyone.

The explosion of the Civil War interrupted the construction of Central Park and drove everyone into the war, including Olmsted. He found his duty in founding the Sanitary Commission (the predecessor of the Red Cross) and served as the secretary of it in 1863. But exhausted by the work in the commission, he was forced to resign and accept a job as the superintendent of California's Mariposa Estate. There, he found himself near to some of the grandest natural scenery in the world, but also immersed in the reality of frontier life. Unlike James Fenimore Cooper's "Leatherstocking Tales," the truth was much more cruel and depressing. According to his biographer Laura Roper, Olmsted found that a frontier where Native Americans, Blacks, Chinese, Mexicans, Italians, German, and "gentlemen" (like himself) from the East Coast were living, "was there to be civilized, a crude society was to be refined, and the resources of a rich and remote region were to be brought into contact

⁴⁰ Ibid., 75.

and cooperation with the forces—morality, art, education, commerce—conductive to progress.”⁴¹

From the raw frontier life, Olmsted was further convinced that the antonym of “civilization” was not nature, but barbarism shown by violence, immorality, and brutality toward mankind. Holding this belief, Olmsted was engaged in two broad projects during his three years’ stay in California. One of them sought to help wipe out the primitive mode of life in the Mariposa Estate, and the other strived to preserve the primitive beauty of the Yosemite Valley and the Sequoia forest. For Olmsted, these two seemingly contradictory projects were essentially the same, for they both attempted to fulfill his social ideal, making the society more civilized. He indicated that “the power of scenery to affect men is, in a large way, proportionate to the degree in which their taste has been cultivated. Among a thousand savages there will be a much smaller number who will show the least sign of being so affected than among a thousand persons taken from a civilized community. This is only one of the many channels in which a similar distinction between civilized and savage men is to be generally observed.”⁴²

In 1864, President Lincoln approved the grant of the Yosemite Valley and the Big Tree Grove to the state of California as a park for public use. Olmsted was appointed to serve as a commissioner to manage the grant, and presented a report to the

⁴¹ Roper, *FLO*, 243.

⁴² Olmsted, “Typed Transcription of Draft of Preliminary Report upon the Yosemite and Big Tree Grove,” *The Evolution of American Conservation Movement, 1850-1920*, the digital archive of American Memory, Library of Congress.

[http://memory.loc.gov/cgi-bin/query/r?ammem/consrv:@field\(DOCID+@lit\(amrvmm02div1\)\)](http://memory.loc.gov/cgi-bin/query/r?ammem/consrv:@field(DOCID+@lit(amrvmm02div1))).
(accessed on February 20, 2008)

commission in August 1865 after his travel in this region. It was the first report which systematically analyzed why it was the government's responsibility to take care of the wild natural beauty and suggested how to manage the scenery. Olmsted pointed out that there were two major reasons for government to be in charge of this region. The first one was "the direct and obvious pecuniary advantage which comes to a commonwealth" obtained from developing tourism in this spectacular natural beauty. But the second was the "more important" one. Olmsted argued that "it is the main duty of government, if it is not the sole duty of government, to provide means of protection for all its citizens in the pursuit of happiness against the obstacles, otherwise insurmountable, which the selfishness of individuals or combinations of individuals is liable to interpose to that pursuit." And the right of appreciating nature was part of the pursuit of happiness.⁴³

Olmsted never doubted the potency of natural scenery in strengthening both people's bodies and their morality. On the one hand, he admitted that the ability of appreciating natural beauty was innate to everyone; on the other, he found that if the access to this beauty was closed, this innate feeling would be blunted. He argued that "it is unquestionably true that excessive and persistent devotion to sordid interests cramp and distort the power of appreciating natural beauty and destroy the love of it which the Almighty has implanted in every human being, and which is so intimately and mysteriously associated with the moral perceptions and intuitions, but it is not true that exemption from toil, much leisure, much study, much wealth, is necessary to

⁴³ Ibid.

the exercise of the esthetic and contemplative faculties.” It would be a “political duty” for the government to fight against “the monopoly” grabbed by a minority of what nature would supply to the mental and physical health of the majority, and to establish “great public grounds for the free enjoyment of the people.” He quoted Downing’s words that the “destinies of the New World” would not only make reading and writing universal, but would realize “common enjoyments for all classes in the higher realms of art, letters, science, social recreations and enjoyments.” Thus, Olmsted insisted that “it was in accordance with these views of the destiny of the New World and the duty of the Republican Government that Congress enacted that the Yosemite should be held, guarded and managed for the free use of the whole body of the people forever, and that the care of it, and the hospitality of admitting strangers from all parts of the world to visit it and enjoy it freely, should be a duty of dignity and be committed only to a sovereign State.” Throughout his career, Olmsted kept up a persistent call for government’s responsibility for preserving and managing the nation’s natural scenes for everybody.⁴⁴

On the issue of how to manage the wild natural scene, Olmsted expressed a Romantic aesthetic view. He argued that except for the rudimentary facilities, such as a few lodging places, restaurants, and roads built for popular access, people should inflict minimal modification on the wild primitive landscape of the Yosemite Valley. Olmsted stated this point of view very clearly in his report: “The first point to be kept in mind then is the preservation and maintenance as exactly as is possible of the

⁴⁴ Ibid.

natural scenery; the restriction, that is to say, within the narrowest limits consistent with the necessary accommodation of visitors, of all artificial constructions and the prevention of all constructions markedly inharmonious with the scenery or which would unnecessarily obscure, distort or detract from the dignity of the scenery.” And all the artificial construction, especially roads, should be built under the instruction of a landscape architect, who would know how to make his work best fit in the natural landscape.⁴⁵

In 1865, Vaux urged Olmsted to come back to the East Coast and complete their unfinished Central Park and build Prospect Park for Brooklyn. After over forty years’ wandering, Olmsted finally decided where his true interest was. He was not only a social engineer, but also an artist working intimately with nature. His return to New York City signaled the beginning of the Age of Olmsted in the nation’s landscape architecture history. American landscape, from the East to the West, was going to be dramatically changed by the ideas of Olmsted and his adherents. But his influence went far beyond the profession he was devoted to. The roaming years were not wasted; they had enabled Olmsted to understand and predict the development of the emerging urban industrial society as well as its problems in a much more profound and insightful way than most of his contemporaries. He started to design not only new parks, but also new cities and a new mode of life for urban residents—a closer physical, mental, and aesthetic connection with nature.

⁴⁵ Ibid.

Marsh and Olmsted were the two prominent figures who inspired the publication of *G&F*. Their anxiety about the contemporary relationship between nature and culture, their anthropocentric point of view in this relationship, their commitment to science, their Romantic aesthetic vision of nature, all glowed brightly in the pages of *G&F*. Meanwhile, this magazine was the product of its particular era, a new urban industrial age. The progressives' devotion to reforms, their call for government responsibility, and their concern for public good were recurrent themes of the magazine. The prevalent sentiment for nature in the "back to nature" movement was expressed by the editors and contributors of the magazine too.

G&F was also unique in its age. Like the wilderness clubs, *G&F* was concerned with the fate of the wilder regions in the nation. But it placed equal emphasis on nature inside cities. Forests, mountains, rivers, and wild species were not the only natural entities people should take care of. In an age when nature became more and more alienated from humans, it was important to retain some nature, no matter in what forms, close to people's daily life. At the same time, the magazine indicated that urban environmental issues involved not only sewers or garbage recycling but also natural beauty and all the elements creating this beauty, such as trees and flowers. From 1888 to 1897, *G&F* attracted several groups of people writing for it, and it formed a special environmental organization in its time, with both a wider scope and a more comprehensive consideration of the relationship between nature and human beings.

Chapter 2

Two Minds, One Magazine

William A. Stiles had neither time nor mood to celebrate Christmas and the new year of 1888. Besides his routine editorial writing for the *New York Tribune*, he accepted a new job: managing editor of the forthcoming weekly magazine entitled *Garden and Forest*. The idea of this new publication derived from Charles S. Sargent, the founder and director of the Arnold Arboretum at Harvard, but he was hit by a sudden case of typhoid in mid-December. Sargent's unexpected sickness brought the entire plan into disorder. Stiles felt that he was "left hanging in air." The publishing company had to be formed as soon as possible; several blank advertising pages in the magazine had to be sold; "30,000 names" had to be organized for mailing the prospectus; the correspondence from the contributors had to be answered. But the most overwhelming and urgent work to be done at this moment was to get enough money for publishing the first few issues of the magazine.¹

Sargent himself was one of the major financial backers of the magazine, and all the other stock holders were his friends and long-term benefactors of the Arnold Arboretum, including Frederick Ames, Jack Gardner, and Horatio H. Hunnewell. After sending \$250 to Stiles, Sargent was occupied by his health problem. Stiles found himself in "a singular condition." Having worked extremely hard for two

¹ Stiles to Olmsted, 26 December 1887, Olmsted Papers, Library of Congress.

months on preparing for the publication of the magazine, he did not get a dollar for his service; on the contrary, he had to pay for many things out of his own pocket. But this was not the major problem. The more serious predicament at this moment was, on the one hand, he was confident and eager to see the success of the magazine; on the other hand, both he and the forthcoming magazine were in strained financial circumstances. He barely had any personal contact with those rich patrons from Boston, and he did not want to approach Sargent or his wife about business matters when Sargent was badly ill. But he had articles and specimens coming in from everywhere, and he had sent out 15,000 announcements about the publication of the magazine. He said plainly that “we can’t stop—or make any show of stopping,” because “this has all been done in his [Sargent’s] name, & his honor is at stake.”²

Stiles went for help to Frederick Law Olmsted, a frequent correspondent and a mentor. From December 25 to 30, Stiles wrote to Olmsted almost every day, and Olmsted did not disappoint. He was generous in both advice and money. Right after he received Stiles’s first letter, Olmsted sent encouragement along with \$500. This was enough to “tide” the magazine “over.” A couple of days later, Frederick Ames’s check arrived, and Stiles was rescued from the magazine’s first business crisis. He wrote to thank Olmsted, promising optimistically that this was a “safe investment.” He was looking forward to publishing a first class or even the best magazine in its field.³

² Stiles to Olmsted, 25, 27, 30 December 1887, Olmsted Papers, Library of Congress.

³ Stiles to Olmsted, 28 December 1887, Olmsted Papers, Library of Congress.

On February 29, 1888, after being postponed for almost three months, the first issue of *Garden and Forest: A Journal of Horticulture, Landscape Art, and Forestry* was published in New York City. It cost 10 cents per issue and 4 dollars a year. As everyone had expected, the magazine proved to be superior to any others in its category. The content was broad, the editorials were insightful, the essays were well chosen, the layout was tasteful, and the illustrations were wonderful. For the next ten years, *G&F* maintained this high quality in all aspects. Stiles was right in his judgment that the magazine was going to be interesting and influential on many subjects related to nature, science, and society. But he would never be able to deliver on his financial promise: although a great success in many ways, the magazine failed as a business. In the last issue published on December 29, 1897, Sargent announced the end of the magazine in a short note on the last page:

With the present issue, which completes the tenth volume, the publication of GARDEN AND FOREST ends.... This experiment, which has cost a large amount of time and money, has shown conclusively that there are not persons enough in the United States interested in the subjects which have been presented in the columns of GARDEN AND FOREST to make a journal of its class and character self-supporting. It is useless to expend more time and money on a publication which cannot be made financially successful, and must, therefore, sooner or later cease to exist.

The magazine was not a profitable investment for its stock holders.⁴

However, the significance of *G&F* was not confined to its modest circulation. Its articles and arguments on diverse issues were quoted, addressed, or reiterated among politicians, professors, and journalists in newspapers, magazines, speeches, and college courses. Its reputation and influence went beyond the geographic boundary of North American, reaching Europe, South America, and even Japan. Its pioneering

⁴ *G&F*, 29 December 1897, 518.

systematic discussion on forestry stirred up a nationwide debate over the preservation and management of forests. Its enthusiastic advocacy of urban parks and landscape architecture in general promoted the necessity of nature in designing modern cities.

The magazine appeared at the critical moment when American environmental awareness was forming. Being a common and ground-breaking forum for different professions interested in present and future environmental issues, the magazine involved contributors from a wide spectrum of green concern, uniting beauty and utility, city and countryside, nature and culture, scientific knowledge and aesthetic sentiment. It was the first experiment to incorporate those different strands of thought into a single magazine, and after the ceasing of its publication, the integrated approach promoted by the magazine began to fracture into separate disciplines, such as landscape architecture, forestry, and horticulture.

The unique role of *G&F* in forging American environmental awareness came from its comprehensiveness, which was to a great extent determined by the social background, knowledge, and interest of the editors. Sargent and Stiles shared a passion for nature, especially for plants, but they differed from each other in many aspects. This passion, which was the fundamental theme of the magazine, underlay their close cooperation in editing the magazine for a decade, but it was the differences between them which made the magazine more complicated and eclectic. For those ten years, 1888-1897, their lives and thoughts were closely intertwined with the magazine. Thus, the central question of this chapter is: how did the editors' own perceptions and experiences shape the magazine, and conversely, how did the magazine influence

their careers? This question leads to several others: who were Sargent and Stiles? What was their social and educational background? What were they interested in? Who were their friends? And how did they define the mission of the magazine?

In his “Biographical Memoir of Charles Sprague Sargent,” botanist William Trelease, a frequent contributor to *G&F*, began with a sentence from Edward E. Hale: “One day, a man looked up—and saw a tree.” Sargent, the founder and the first director of the Arnold Arboretum at Harvard and the author of the fourteen-volume monumental work *The Silva of North America*, saw, knew, and fell in love with numerous trees in his long life, many more than most people of the world. Although he accumulated some enemies among his fellow humans, Sargent was a real friend to all the trees.⁵

He did not show this zealous interest in trees as a child. Born to one of the oldest and most famous families in Boston in 1841, he was the second and the only surviving son of a successful banker and railroad man, Ignatius Sargent. The latter purchased “Holm Lea” (meaning “inland island pasture” in Norwegian) in Brookline, the largest private estate close to the heart of Boston. Like most of his contemporary New England wealthy elites, Ignatius Sargent dedicated his leisure to horticulture and transformed his domain into well managed parklands. Spending several summers when he was a little boy at Holm Lea and then, after 1852, settling down among these gardens, Sargent did not leave any records to demonstrate any early signs of his love of plants. After he grew up, this rational and reserved man rarely mentioned his

⁵ William Trelease, “Biographical Memoir of Charles Sprague Sargent,” *National Academy of Science of the United States of America: Biographical Memoirs* 12, no. 9 (1929): 247.

childhood. “I have virtually no information about his early life. On one occasion,” his long-term colleague Ernest H. Wilson recalled, “being in a reminiscent mood, he drove me around and pointed out the house on Joy Street, Boston, in which he was born. Passing the Arlington Street side of the Public Garden, he remarked that there he used to put on his skates, and that opposite the Harvard Club he frequently fished for smelts through the ice.”⁶ These words are probably the only record through which people could connect the boy Charles with some sort of outdoor life.⁷

Sargent did not show any outstanding talents when he was in school either. After he left the Epes Sargent Dixwell School for boys, he entered Harvard College in the fall of 1858. Either because his intelligence matured late, or because he could not adapt himself to the classical way of teaching which emphasized memorizing texts and parroting the teachers, Sargent ranked third from the bottom in a class of ninety when he graduated in 1862. More surprisingly, he was among the very few who did not take the course of botany taught by his later mentor Asa Gray, who billowed the sails of Darwinism on the new continent. Although published in 1859 and immediately introduced to the United States, Darwin’s book *Origin of Species* seems not to have had any impact on the modest Harvard undergraduate Sargent in his school years.

⁶ Ernest H. Wilson, “Charles Sprague Sargent,” *The Harvard Graduates’ Magazine* 35, no. 140 (June, 1927): 605.

⁷ Most biographical information about Sargent is from Sargent’s biography, S.B. Sutton, *Charles Sprague Sargent and the Arnold Arboretum* (Cambridge: Harvard Univ. Press, 1970); Charles Sprague Sargent Papers, the Library of Arnold Arboretum; and Ida Hay, *Science in the Pleasure Ground: A History of the Arnold Arboretum*.

The Civil War exploded when Sargent was in his junior year. Innately lacking interest in politics, Sargent kept silent on his view of the war. But he joined the federal army like most of his classmates, and stayed until August 2, 1865. The military career did not leave any imprint on his later profession. When he was in the army, he mentioned almost nothing in his letters about the vegetation in the Gulf states. After he was discharged, Sargent followed the tradition in his age for a gentleman's education, and went to travel in Europe. Wandering on the old continent for three years, he might have visited some gardens and parks, but once again, no records or comments survive on these visits.

Sargent went back to Boston when he was 27 years old, old enough to establish himself in society. Although very methodical and practical, Sargent did not find his career in business. He took the responsibility to manage his father's estate, and, according to his own account, he cultivated a connection with trees in these years. It is not clear what motivated Sargent to make such a choice for it seemed that trees had not been anything relevant in his earlier life. This profession might have been suggested and encouraged by his father's cousin Henry Sargent and a far relative Horatio H. Hunnewell, for Charles Sargent later admitted that that Henry Sargent was a source of inspiration.

Both Henry Sargent and Hunnewell were in their late fifties then. They belonged to the same social caste, wealthy and well-educated. Henry Sargent, like other Sargents, had made a great amount of wealth which allowed him to semi-retire and indulge in his hobby—horticulture and landscape gardening—when he was in his

early thirties. His country place “Wodenethe” was right across the Hudson River from Andrew Jackson Downing’s estate, and Henry Sargent also became a close friend and an admirer of Downing, “the father of American landscape gardening.” Both the taste and the estate of Henry Sargent conformed to Downing’s artistic principles: simple and natural. From him, Charles Sargent learned the early lessons of landscape gardening and found his own taste congenial to Downing’s theory.

Hunnewell was related to Henry Sargent by his marriage to the latter’s first cousin. He was born to be an insightful businessman and kept accumulating a fortune through banking and wise investment in real estate and railroads. Henry Sargent frequently visited Hunnewell’s estate in Brookline and encouraged his fascination with horticulture, especially with rhododendrons. Hunnewell was important in Charles Sargent’s life not only because he might have been Sargent’s early tutor in horticulture, but also because he was a life-long sponsor of Sargent’s career.

Under the advice of these two persons, Sargent set about fulfilling the horticultural potential of his father’s estate. For a wealthy amateur in landscape gardening and horticulture, Holm Lea might have been the most ideal place to study and practice. Sargent’s biographer S.B. Sutton indicates that the layout of Holm Lea was “the realization of Downing’s ideal—nature, under control, allowed to follow its own inclinations—a rambling simplicity that appealed to the sober Boston banker and his son.” In the following four years after his European trip, Sargent, with no educational background in botany, was learning fast in his naturalistic garden.⁸

⁸ Sutton, *Charles Sprague Sargent*, 18.

Finally, in 1872, an opportunity came that would help him fulfill his professional and personal success. He filled the position of professor of horticulture at the Bussey Institution at Harvard that had been occupied by historian Francis Parkman, who resigned owing to bad health, but Sargent never taught even one class in his life. Right after his appointment, he became the curator of the newly founded Arnold Arboretum on Jamaica Plain, south of Boston. In 1873, he was made the first director of the Arnold Arboretum, and in November, he was appointed the director of the Botanic Garden in Cambridge, a position he held until 1879. Sargent directed the Arnold Arboretum for more than a half century until his death in 1927.

For many people, Sargent's appointment was a mystery. At best, he was a knowledgeable amateur gardener, a supervisor of a private estate, with neither long rich experience nor formal educational background. His poor performance at Harvard back in his school years suggested no extraordinary intelligence or ability. But Asa Gray, the great authority in American botany at the time, liked Sargent and appreciated his diligence in learning and talent in administration. Although Gray did not recommend Sargent directly, his endorsement was crucial. According to Sutton, there might have been other powerful hands behind the whole thing too, such as Hunnewell. She argues that it is natural to speculate that Hunnewell might have made the appointment possible for he was a rich benefactor of Harvard botany. Sargent's own wealth and social position certainly was another advantage in his appointment.

No matter what led Sargent to his position, 1873 was a year for him to celebrate. He was full of ambition and enthusiasm for his fledgling career, and was looking

forward to his second European trip. But this time, Sargent visited many gardens and met many important figures in botany, including Joseph Hooker at the Kew Royal Garden in London. Moreover, unlike his earlier trip, he was traveling with his happy, charming bride, Mary Allen Robeson, a daughter of a rich merchant family in Rhode Island, twelve years younger than Sargent, and “a complete lady.” They married in the same month that Sargent became the Arboretum director, and everything was perfect for the young couple. Sargent, although over-serious and arrogant in his later years, was a handsome young man. Probably not a romantic lover, he possessed abundant health and wealth and was a desirable husband. Mary Sargent. Sutton says, “supplied to his household and his life the ingredients they lacked. Where he was shy, she was outgoing, where he held his feelings at bay, she lavished affection and concern; where he was gruff, she was gentle. In her way, she carried the emotional burden for both of them.” Later, according to Sutton, Mary Sargent became increasingly religious. Sargent, on the contrary, never showed any hints of a committed religious belief.⁹

When Sargent went back to Boston in early 1874, there was a bright career ahead of him. His aim was determined but simple—he intended to build the best arboretum in the world for the American public and for visitors and scientists from other nations, even better than the Kew Royal Garden which was the most admired garden in the world. Sargent was optimistic about accomplishing this goal for he believed that the natural environment of New England was much more suitable for diverse species than

⁹ Ibid., 20.

England. Plants would thrive on Jamaica Plain as they did in their mother-lands, if they were cultivated scientifically. Money was always the primary need and the toughest part of such a program, but for Sargent, this task turned out to be easier than for other people. His own property, strong social connections, and great administrative ability paved a broader and smoother financial way for the arboretum. But Sargent had to deal with something else which usually a director of a botanical garden did not have to face. He needed to acquire the training to be a scientist at least at an elementary level.

Fortunately, he had near at hand Asa Gray. Being a stern and autocratic man, Sargent always intimidated people around him. But for Sargent, Gray was an awe-inspiring figure because of latter's nimble intelligence and amazingly broad knowledge. Born in 1810 in a humble family, Asa Gray earned a degree in medicine in 1831, but he was much more passionate for plants and taxonomy than for medicine. He soon won attention in this field and in 1842 he accepted the professorship of botany at Harvard. In 1873, Gray relinquished the position but kept working in the house of the Botanic Garden where Sargent acted as the director until 1879. It was during these years that Sargent, under the instruction of Gray, grew to become a strictly trained scientist, feeling more confident in his profession. Gray's health rapidly declined after a sudden stroke in November 1887. On January 30, 1888, when *G&F* was on its way to be published, Gray passed away.

The first editorial of the magazine, certainly written by Sargent, was dedicated to Gray. In it, Sargent mourned the death of this botany giant in respectful tone. This

editorial might not have been what Sargent had originally planned to write for the first issue, because Stiles mentioned in his letters to Olmsted that Sargent said that “he would write editorials for the earlier numbers, setting the tone” of the magazine. But in this editorial, besides celebrating Gray’s marvelous achievements in botany and modern science in general, Sargent revealed his ideas about what a botanist could contribute to society.¹⁰

Sargent believed that Gray would occupy a lasting position among the 19th century’s greatest scientific men not only because of his accomplishment in taxonomy, but also because he drew “broad philosophical conclusions from the dry facts he collected and elaborated with such untiring industry and zeal.” Meanwhile, Gray “did not devote himself to abstract science alone; he wrote as successfully for the student as for the professional naturalist.” Most importantly, botany was not the end of Gray’s intellectual activity. Sargent pointed out that “one of Asa Gray’s chief claims to distinction is the prominent and commanding position he took in the great intellectual and scientific struggle of modern times, in which, almost alone and single handed he bore in America the brunt of the disbelief in the Darwinian theory shared by most of the leading naturalists of the time.” But Sargent also expressed regret that Gray had left his crowning work *Synoptical Flora of North America* unfinished, although it would still keep Gray’s “memory green,” “as long as the human race is interested in the study of plants.” Sargent would never let this fate happen to him; two years later, he would publish the first volume of *Silva*, and in 1902 he would draw a

¹⁰ Stiles to Olmsted, 26 December 1887, Olmsted Papers, Library of Congress.

perfect period of this glorious work with the fourteenth volume. In the last paragraph of the editorial, Sargent concluded that the most valuable legacy of Gray was that his life “teaches how industry and unselfish devotion to learning can attain to the highest distinction and the most enduring fame” in an age of “grasping materialism.” This was a life that Sargent was craving and expected the youth of America to seek.¹¹

But Gray was not the only influential figure in Sargent’s career. If Gray was the one who brought him into the field of botany, George Perkins Marsh, or more accurately speaking, his classical work *Man and Nature*, introduced Sargent to a more comprehensive and natural world: the forest. In a letter to the editor of *Century Magazine*, Robert Underwood Johnson, Sargent frankly admitted that he owed his “interest in forests and forest preservation to it [*Man and Nature*] almost entirely.” Presumably, Sargent had read the book when he was the supervisor of Holm Lea. Marsh had been living in Italy until his death in 1882, so Sargent would have not had chance to meet him, but they corresponded after Sargent became the director of the arboretum. The influence of Marsh’s book on Sargent was deep and complex, and was the force pushing him to investigate the nation’s forests and advocate their conservation.¹²

In 1879, Secretary of the Interior Carl Schurz, who was sympathetic to forestry issues, wanted to have a report on the situation of the nation’s forests included in the Tenth Census. Gray recommended Sargent to conduct the investigation, and Sargent

¹¹ Editorial, “Asa Gray,” *G&F*, 29 February 1888, 1.

¹² Sargent to Robert Johnson, 25 November 1908, Sargent Papers, Library of the Arnold Arboretum.

accepted the work. This report should contain “a list of the trees of North America with their geographical distribution and economic uses.” Serving as the head of “Expert and Special Agent of the Tenth Census of the United States,” Sargent enlisted a group of botanists, collectors, and nurserymen, including George Engelmann, George Letterman, Cyrus Pringle, Robert Douglas, Sereno Watson, A.H. Curtiss, Charles Mohr, and others. In 1880, for the first time, Sargent went deep into the nation’s West, studying the forests, the existing dangers and problems, such as fire and grazing, and their relationship with other factors of nature. In 1883, he finished compiling, organizing, and evaluating all the data attained from the field trips, and published his first major work, *The Report on the Forests of North America*.¹³

The report was the first systematic and extensive work on the nation’s forests based on observation and study in fields and laboratories. Through cold and orderly arranged facts, Sargent tried to convey the same message that Marsh preached in *Man and Nature*: that the nation’s forests had to be protected and managed as soon as possible, otherwise, this great wealth of nature would diminish, leading subsequently to the decline of the civilization. Three decades later, Sargent would claim that “this report, I think I can say without vanity, marked the first real step taken in this country toward forest preservation, and I believe that it was owing to this report that the early forest reservations were made. In any case, very little was known before the

¹³ Ibid.

publication of this report about the forests of the country, their composition and productive capacity.”¹⁴ He gave a fair and objective appraisal to his own work.

In an essay published in *The North American Review* in 1882, Sargent expressed his conservation ideas in a more direct and clear way. He analyzed the relationship between forests and rivers in both East and West, warning that if government and the general public could not be awakened as soon as possible, in the near future the land of North America would be entirely stripped of its forests. Forest protection required prompt government legislation, which, however, had to be supported by environmental awareness among the public. He stated that “the future prosperity and development of the country... [are] largely dependent upon the preservation of the forest.” The report, to some extent, was the scientific foundation to back this argument. Since Sargent’s first step in forestry, he had maintained a consistent tone. This essay had no substantial difference from the editorials written for *G&F*, but after continuing frustration in fighting for forest preservation, the emotion shown in *G&F* was more intense, and the tone was more demanding.¹⁵

This essay attracted immediate attention among eastern intellectuals. The *New York Times* had a long article on Sargent’s essay under the same title, asserting that “Prof. Sargent’s knowledge of the extent, condition, and laws of growth of our forests is probably more full and accurate than that of any other man in the country, his professional studies as a botanist and his special investigation in connection with the

¹⁴ Ibid.

¹⁵ Sargent, “The Protection of Forests,” *The North American Review* 135, no. 311 (1882): 386.

preparation of forestry bulletins of the Census Bureau giving him that pre-eminence.” Sargent had gained a reputation as the nation’s authority on forest issues.¹⁶

With this reputation, Sargent was invited to join the Northern Transcontinental Survey sponsored by the railroad magnate Henry Villard, who wanted to collect information of the resources of northwest railroad interests. Raphael Pumpelly, a geologist and formerly a Harvard professor of mining engineering, was the director of the survey. Sargent accepted the invitation for his own curiosity about the forests on the northwestern mountains. At the end of June 1883, when Sargent finally finished the report, he headed for the mountains of Montana. Stiles, then an editorial writer for the *New York Tribune*, went along with him as a guest for the sake of adventure.

The most significant outcome of this survey for Sargent was an essay published in *Nation* in September 1883, in which for the first time, he proposed to establish a national forest reserve on the site of Glacier National Park. The sublimity of the scenery obviously touched Sargent, but what made him more concerned was the prominent impact of the forests on the origin of three rivers: the Missouri, the Columbia, and the Saskatchewan. For this reason, he pointed out that “there seems to be an entirely proper opportunity for the Government to establish a great forest preserve.” This forest preserve “would contain perhaps some 8,000 square miles of mountain territory, absolutely unfit for agriculture or grazing, and only valuable as a reservoir of moisture.”¹⁷

¹⁶ “The Protection of Forests,” *New York Times*, 18 September 1882, 4.

¹⁷ Sargent, *Nation*, 37 (September 1883): 201.

The survey was terminated for financial reasons. Sutton indicates that “the Survey itself had caused dissent among the railroad backers, some of whom suspected it would not favor their acquisitive schemes. The establishment of national parks, for example, was not their idea of profit-making investment.”¹⁸ It would be interesting to know how Sargent resolved the conflict between his objection to the invasion of railroads into the forests and the security of his personal wealth mainly acquired from investing in railroads. His father Ignatius Sargent wisely invested his money from banking and other businesses in railroads and accumulated a considerable fortune out of it. In 1880, Sargent took the place occupied by his father on the board of the Boston and Albany Railroad and later was elected one of the directors. When the senior Sargent passed away in 1884, the son inherited Holm Lea and all other properties of his father including the stock of the railroad company. This wealth shielded Sargent from any financial problems and was one of the major reasons why he was appointed to the Arnold Arboretum. But in the years when he was engaged in the conservation movement, Sargent stood firmly with the opposition to railroad companies and fought hard against their ambition to engulf the nation’s forests.

It was not rare in the late 19th century for the affluent elite class to share some passion for nature. From Sargent’s own family, there were Henry Sargent and H.H. Hunnewell, and the latter made his money from railroad investment. Worster points out that other railroad barons, such as E.H. Harriman, a friend of John Muir, the nation’s most prestigious naturalist, “sought beautiful scenery to adorn their lives and

¹⁸ Sutton, *Charles Sprague Sargent*, 96.

therapy to soothe the cares and nervous prostration brought on by their intense work habits.”¹⁹ But Sargent was different. If the standard had been drawn based on social status and wealth, they belonged to the same category; but if their association with nature was at issue, Sargent deviated from his social class. Underneath his imperious and stout appearance, he was essentially a scholar with sincere love of nature, and was idealistic in many ways. His obsession with nature could not be fed by a bit of scenery or some labor in a greenhouse. He wanted to know an entire natural world composed of plants, humble and sublime. This world for him was much more fascinating than the human world.

Sargent did enjoy his wealth and the comfort and security brought by it. More importantly, this wealth was part of the foundation of his career. To a great extent, the Arnold Arboretum depended on private donations for its survival and expansion, and *G&F* never supported itself either. Sargent, however, did not have the desire to make his wealth grow and had no time to think about its increase. He did see the local and national economic benefit following the construction of railroads and like his contemporaries, he embraced this improvement, although with many questions. But he intended to impose some restraint on the wanton destruction of nature caused by the improvement. He did not find any necessary relationship between the development of the economy, such as railroads, and the extinction of forests, if people could restrain their greed and behavior.

¹⁹ Donald Worster, “John Muir and the Modern Passion for Nature,” *Environmental History* 10, no. 1 (January 2005).
<http://www.historycooperative.org/journals/eh/10.1/worster.html>. (accessed on February 5, 2008)

Sargent might not have bothered to think about the contradiction between his stance in the conservation movement and his position founded on the railroad business. What made him more bewildered and frustrated was politics. Sutton was right that Sargent was extremely conservative in politics and loathed any forms of governmental intervention. He did not understand the political games; neither did he like to be involved in them. But his anxiety about the future of the nation's forests forced him to deal with politicians and government. On the issue of forest conservation, like all the other conservationists, Sargent asked for a strong hand of local and federal government. Impelled by this motivation, Sargent promised to serve as the chairman of a commission appointed by New York State to "investigate and report a system of forest preservation" of the Adirondacks.²⁰

Sargent undertook the task in 1884 and finished the report in 1885. Being the only expert on forests on the commission, he wrote the major part of the report. He analyzed the function of the Adirondack forest in preserving the headwaters of the Hudson River and Erie Canal and the value of its natural beauty. The report also warned about the dangers existing in the forests, such as fire. Because of the complicated geo-cultural landscape of the Adirondacks where the state-owned land interlocked with private land, the management of the forests became much more difficult. Thus, the report insisted that the fundamental way of preserving the Adirondacks would be that "under different circumstances the state might acquire the whole Adirondack forest by purchase." But considering the difficulty of fulfilling it,

²⁰ Sargent, *The Report of the Forestry Commission* (the State of New York Assembly, no. 36, January 1885), 4.

the commissioners suggested that the state could demonstrate its ability to manage the forest on a small scale first, so they proposed three bills to be the temporary alternatives.²¹

The first bill, and also the most controversial one, proposed to establish a permanent, unsalaried, and non-political forestry commission. Sargent revealed his suspicion of the efficiency of politicians in managing forests. He wanted the support of the state government, but not the meddling of politicians. Thus, a commission composed of people with public spirit and non-partisan nature would be a much better choice. They “should serve for considerable periods of time, in order that a fixed policy may be insured.” Salary, even a small amount, “would bring an element of instability into the composition of such a commission.” The second one was on the necessary protection of forests provided by the state. And the third one proposed “to prevent the cutting or removing of timber from lands in the Adirondack region upon which the taxes are overdue.” Sargent and the committee discerned that thousands of acres of land in this region had been denuded of timber and abandoned by their owners refusing to pay tax for four or five years. When the lands came back to the hand of the state government, they would be “practically valueless” for many years.²²

None of the three bills passed in Albany. Sargent was surprised and disappointed to see the passage of the alternative Lansing bill which was drafted under the aid of Franklin Hough, Bernhard Fernow, and Verplanck Colvin, some figures who were in the same conservation camp with Sargent, but who had more faith and ambition in

²¹ Ibid., 16.

²² Ibid., 19, 21, 22.

politics than he did. Compared to Sargent's bills, the Lansing bill made some tactful concessions to the objections of various political and business interests, and the most important one was on the character of the proposed forest commission. The Adirondack forest commission established as a consequence of the Lansing bill consisted of politicians who knew nothing about forests. In the following years, the inefficiency of the commission further supported Sargent's belief that forests had to be managed by experts shielded from the interference of politicians.

In the 1880s, much of Sargent's attention was devoted to forest issues, which made him one of the most authoritative figures in forestry, a novel field in North America, but he did not ignore his work in the arboretum. In 1882, the alliance of Sargent and Frederick Law Olmsted won a nine-year-long negotiation with Boston City Council and Harvard University and successfully made the Arnold Arboretum a pearl of Olmsted's "Emerald Necklace," the linear park system of Boston, starting from Boston Common and ending in Franklin Park. This "L" shaped system comprised of parks and parkways, was the best representative of Olmsted's desire to design a city by incorporating nature into the urban landscape. In this agreement, Harvard transferred the land on which the arboretum was established back to the city, but the city leased it to Harvard "at the rate of one dollar a year, for one thousand years, on a tax-free basis with a renewable lease." The City of Boston took the responsibility of building and maintaining the roads, and gates, and providing police

protection. The Arnold Arboretum promised to be open to the public as a part of the park system and the staffs of the arboretum were affiliated with Harvard.²³

Sargent could not have been more satisfied with the result of this agreement. First of all, the most pertinent pressure of the arboretum—fund raising—was substantially mitigated. Second, Sargent never intended to build a garden merely for a limited group of scientists to do their research. Instead, his ideal arboretum would educate the general public with elementary knowledge of botany in order to stimulate their interest in science and love of nature. Being a part of the Boston park system, the Arnold Arboretum would have wider and more convenient access to the public due to improved road construction and transportation facilities. Third, he got the assistance of Olmsted, one the best landscape architects in the world and the best in the United States in designing the landscape of the arboretum. Under Olmsted's design, the arboretum presented itself as a masterpiece of natural landscape architecture, not a huge flower bed or plant exhibit.

The cooperation between Sargent and Olmsted started in 1873 when Olmsted became involved with the Boston park system. Their collaboration was successful and pleasant, thus, they continued this professional connection into several other projects, such as the Commonwealth Avenue street-tree planting and the preservation of the redwood forest in California. Although their interest in nature emphasized different aspects, they complemented each other. On Sargent's side, he admired the simple and natural style expressed by Olmsted's works which injected aesthetic dynamics to his

²³ Sutton, *Charles Sprague Sargent*, 63.

scientific studies and exhibits; and on Olmsted's side, he respected Sargent's professional knowledge in horticulture and botany which helped him fill the gaps in his own. When Olmsted settled his family in Brookline permanently in 1881, his friendship with Sargent went even further.

Olmsted was sixty years old then, still energetic and active in his professional career, but he was not productive in writing anymore. He felt the need to find someone to speak for him and his profession, and Stiles was one of the best among them. Stiles was born on a farm near Deckertown, in northern New Jersey, in March 1837. He was the only son of Edward A. Stiles, who founded Mount Retirement Seminary, which was one of the best educational institutes in northern New Jersey. Stiles accepted his education in his father's school before he went to college. Quite different from Sargent who was always well disciplined, Stiles was so mischievous that his father expelled him from the classroom at least once every term. But he was a good student in general, showing special talent in several fields such as Latin, music, and mathematics.²⁴

He went to Yale in 1857, country-looking and a little shabby. Thus, his classmates at first thought he was very "'green' and awkward." But he changed people's impression very fast. A story was told about him that one day he was called on to solve a problem in geometry, and he gave a satisfying answer. Then the professor asked him: "But why does A equal B?" He answered: "Because two and two make

²⁴ Most biographical information of Stiles, if not specially noted, is from "William A. Stiles, A Sketch of His Life," *New York Daily Tribune*, 7 October 1897, 7; Editorial, "William A. Stiles," *G&F*, 13 October 1897, 399; and "William A. Stiles Is Dead," *New York Times*, 7 October 1897, 5.

four.” The class laughed. The professor realized that “the geometrical fact was in the lad’s mind as clear as the sum in addition.” People hailed him as a “natural mathematician.” A *New York Times* essay about Stiles recorded some of his words on the connection between mathematics, art, botany, nature, and landscape architecture in his eyes:

Mathematics is logic, system, form. Art is form in its high development. Botany is the study of nature’s growths, and from examinations of nature’s methods one learns the natural arrangement of plants and trees and of the paths through the collection of lawn, bush, and forest, and thus nature and art again commingle and again are proved identical.

These words explained why he could attain equally high pleasure from these seemingly different things. Meanwhile, they revealed Stiles’s intention to incorporate these things, including nature, into an orderly rational world, which he truly appreciated.²⁵

Stiles soon made himself known in college, and “his manner of speech, his caustic humor, and his kindliness of heart, added to the simplicity of his tastes, frequently tempted his friends to compare him with Abraham Lincoln.” He graduated from Yale in 1859 with honors (sharply contrasted to Sargent’s poor grades at Harvard), and became a teacher in his father’s school, studying law at the same time. But his declining health, especially his severely impaired vision, forced him to give up and go across the Isthmus of Panama to San Francisco in 1864, hoping to get benefit for his health from a sea voyage. He did recover when he arrived in California. After teaching English literature and music in a school in Oakland for a while, he accepted a position in the corps of engineers who were engaged in constructing railroads for

²⁵ “William A. Stiles Is Dead,” *New York Times*, 7 October 1897, 5.

the Central Pacific Railroad across the Sierra Nevada. It is hard to know how Stiles thought about the gorgeous scenery of those mountains during this time period when he was concentrated on drawing maps and extending the symbol of civilization into wilderness. But his health collapsed from the exhaustive work. When he managed to go back to the East, he was close to death and completely blind. No one dared to predict his recovery. His sisters nursed him, and Stiles spent the rest of his life with one of their families since he never married.²⁶

He was confined to bed for more than a year, without vision or mobility, and fearing the coming of death at every single minute. It was during this illness that Stiles found another world, full of vitality and freedom, so much different from the one of his own life. He could not see, but he listened; he could not move, but he thought; he could not touch, but he sensed. This world was the world of plants, trees, flowers, birds, insects, wind, and water. When he was better, he spent hours and hours roaming his father's farm, observing plants, and studying the Latin names, characters, and habits of various species. "This love of plants grew to a passion, and he became an expert in botany."²⁷ It extended to other related fields, such as horticulture, scientific agriculture, forestry, and most importantly urban parks. Different from landscape architects who worked directly with plants and land, Stiles applied his pen to defend their existence and expansion in a radically changing society.

In the meanwhile, he devoted part of his attention to politics and produced a bulk of "vigorous and characteristic political articles for the *Tribune* and other papers."

²⁶ Ibid.

²⁷ "William A. Stiles, A Sketch of His Life," *New York Daily Tribune*, 7 October 1897, 7.

This interest was followed by two consequences. One of them was a temporary participation and practice in politics. To make a living, he served as a gauger (tax collector) in the New York Custom House, but he found the job “uncongenial.” Later, in 1880 and 1883, he ran for the New Jersey State Senate as a Republican candidate, but was defeated by small majorities both times. After the second defeat, he accepted the appointment as the secretary of the State Senate, but stayed only for one term.

The other consequence turned out to be his destined career—writing and editing. Samuel Parson Jr., a landscape architect, recalled that Stiles, being a wonderful after-dinner speaker, gave a talk at a gathering of Yale alumni in New York in the late 1870s. The editor and publisher of the *New York Tribune*, Whitelaw Reid, was captivated by Stiles’s wit and immediately offered him a job as an editorial writer with the *New York Tribune*.²⁸ He held this position until the end of his life. In the early years, his writing focused on local political issues. According to an obituary essay in the *New York Times*, Stiles wrote all the New Jersey political matter for the *New York Tribune*, “where his knowledge of English and his crisp, clear-cut form of expression made him a powerful adherent of whatever policy he was supporting.” In 1883, in addition to the editorial work for the *Tribune*, he was also offered the position of agriculture editor in the *Philadelphia Press*, one of the oldest major newspapers in Philadelphia. In the 1880s and afterwards, Stiles’s writing focused on protecting urban parks from any wanton intrusion and destruction.

²⁸ Mabel Parsons, ed., *Memories of Samuel Parsons* (New York: Putnam's, 1926), 127, quoted in Phyllis Anderson, “‘Master of a Felicitous English Style’: William Augustus Stiles, Editor of *Garden and Forest*,” *Arnodia* 60, no. 2 (2000): 40.

It was also in urban parks that Stiles found common ground in his love of nature, his fascination with art, his interest in politics, and his talent in writing. For him, an artistically designed urban park was an emblem of the combination of art and nature which, in his view, were inextricable when they reached their highest or most beautiful form. Urban parks were not only the perfect union of art and nature, but also the place in the congested cities where stressed-out urban residents could relax and contemplate. They were the only chance for urban crowds to redeem their connection with nature and its beauty. And also, the existence of urban parks allowed some space where people of various classes could share the same sphere, breathe the same air, and enjoy the same scenery, which was what the advocates of democracy, such as Olmsted, strived to achieve. Stiles was such an advocate too.

When he was engaged in a political campaign, his ultimate goal was to consolidate American democracy. He withdrew from the front of the political stage, but his passion for democracy did not fade. He merely took another track to meet this end. Rather than fighting for the interest of one particular group or class or for himself, he regarded appreciating and enjoying nature as the right and need for all social classes. In a letter to Olmsted, Stiles wrote that “I have found that the sharpest attack nowadays is to make common cause with the poor as against encroachment of classes. No one dares to speak slightly in public of the right of poor children to clean air & grass & trees & birds.”²⁹ These were entities that Stiles felt that he was obligated to preserve in cities. As a loyal adherent of Olmsted’s art, Stiles also

²⁹ Stiles to Olmsted, 25 December 1885, Olmsted Papers, Library of Congress.

concurred with Olmsted's social ideal. He intended to use the power of his pen to defend Olmsted's works and their social values.

Stiles might have made acquaintance with Sargent through Olmsted. In his correspondence with Olmsted, Stiles mentioned Sargent several times before he became the editor of *G&F*. In a letter written in 1885, he mentioned that Sargent criticized his Roan Mountain essay for its description of the charms and grass of the summit as "quite incomplete." Stiles thought that the criticism was "correct," but he argued that "it isn't easy to keep on describing scene after scene and object after object in nature." What he could not agree with Sargent was the point that he "should have left out the list of big trees," because Stiles believed that "facts are valuable to some extent always." It is hard to speculate why Sargent had a criticism like this, for his own works consist mainly of facts. He might have expected Stiles to exploit his talent of language more thoroughly in his description of the beauty of nature, and let scientists, like Sargent, complete the job of giving facts.³⁰

In a couple of 1887 letters to Olmsted, Stiles mentioned his views of Sargent. The "professor" invited him to go to Europe with him and Henry Codman, Sargent's nephew and one of the most promising young landscape architects. On the one hand, he knew Sargent's imperious character (which he might have acquired through the survey they had done in 1883) so well that he felt hesitant to accept the invitation. He was certain that "with the professor I should be a subaltern under marching order—with a rush here or there as might be best for his purposes of course, but without any

³⁰ Stiles to Olmsted, 7 December 1885, Olmsted Papers, Library of Congress.

free agency of mine.” But on the other hand, he respected Sargent’s knowledge of botany and forestry, and anticipated the “highest educational value of the trip.” The shortage of being over-commanded by Sargent would be “balanced of course by the advantages of his instruction & the superior opportunities for learning.” In the end, Stiles did not go for financial reasons, but he was right at his prediction. Codman was exhausted by his uncle’s “marching order.”³¹

In fact, physically and mentally, Stiles and Sargent were two different and even opposite persons. As a Sargent, the rich Boston botanist was big and strong, while Stiles, whose health had never been robust, was “tall, being 6 inches 3 feet in height, angular, and of spare build.” Besides a stout body, Sargent also inherited a considerable amount of property from his father, making him personally far away from financial constraints. Stiles, however, was living on his salary and some other modest income (his brother-in-law managed the farm of his father for him). In the same letter in which he explained why he could not travel with Sargent in Europe in 1887, he confessed it was partly due to lack of money. He said that he was responsible for supporting several young people related to him, which had cost him “more than several trips to Europe.” He had “less money” than he had had some years ago and he expected “to have less at the end of each year than” he had “at the beginning for some time to come.” And this “was one hardship not to be able to go to Europe.”³²

³¹ Stiles to Olmsted, 12 June 1887, Olmsted Papers, Library of Congress.

³² “New Park Commissioners,” *New York Times*, 10 November 1895, 16; Stiles to Olmsted, 12 June 1887, Olmsted Papers, Library of Congress.

The two were even more different in their temperament. Sargent had the reputation of being cold, bossy, and arrogant. It took a long time and close acquaintance to touch “a sympathetic kindliness as underlying any superficial reactions.” Stiles, however, was easy-going, had great humor, and made friends rapidly. Sargent was usually distant and quiet in public, although Ernest Wilson, his colleague and the succeeding director of the Arnold Arboretum claimed that “toward ladies he [Sargent] had a charming, deferential manner.” Stiles, however, was “the most celebrated after dinner speaker,” and “whenever his tall, gaunt, Lincoln-like figure was seen to rise at the post-prandial board, for speech or story, the treat of the evening was known to be assured.”³³

The difference between these two persons also lay in their interests. Sargent’s world was occupied by plants. From Holm Lea to the Arnold Arboretum, from the parks in Boston to the forests in the West, from America to other corners of the earth, plants were his career and his leisure. Stiles, however, had a wide variety of interests. He was marked with the word “versatility” when people recalled him. In the memoir of Stiles, Sargent indicated that music was one of his natural gifts, which “came from his mother, a woman of strong intellect and great refinement, from whom, too, came his ready and brilliant wit and keen perceptions.” And “music was one of the vital and influential forces of his life.” Appreciating Stiles’s talent sincerely, Sargent, on the contrary, was poor in music, and according to Sutton, his family even dared to make fun of him on this. Stiles was also interested in sports, football, baseball, and horse

³³ Trelease, 248; Ernest Wilson, 610; Editorial, “William A. Stiles,” *New York Daily Tribune*, 7 October 1897, 6.

rating, and had professional insight and criticism in these games, and entertained himself by solving tough mathematical problems.³⁴

However, their biggest difference was in their attitude toward politics and religion. Contrary to Sargent's indifference to politics, Stiles was fascinated with political games as much as he was with sports. He was a firm Republican, which was also distinct from Sargent who committed to neither party. In terms of religion, nobody has found any religious enthusiasm in Sargent, while Stiles was "a constant and profound student of the Bible and truly reverential," a fact that was, however, unknown to many, "even some of his intimate friends." When the church of his hometown was short of a pastor, he took charge of the place for many months. In later years, he sometimes still played organ in front of the congregation, and "at such times his face took on a deep seriousness, as reverential as it was sincere, and with nervous intensity showing in his dilated nostrils and in the strong touch of his fingers, he led in sacred song the congregation of the church where his father and grandfather had been honored deacons."³⁵

It is almost impossible to discern the religious side of Stiles from his published essays. In his advocacy of urban parks, Stiles was against all forms of religious preaching, including Christianity, inside parks, which, he argued, would disturb the tranquility offered by nature. From his own essays and his friends' description, religion was in no way defined by zealous behaviors or superficial rituals, but by

³⁴ Editorial, "William A. Stiles," *G&F*, 13 October 1897, 399.

³⁵ Editorial, "William A. Stiles," *G&F*, 13 October 1897, 399; "William A. Stiles, A Funeral," *New York Daily Tribune*, 9 October 1897, 6.

complex ideas which led him to deeper contemplation. Like most American intellectuals in his time, Stiles was also profoundly influenced by Ralph Waldo Emerson's transcendentalism, which aimed to search for God and his miracles in his own creation—nature. Stiles once joked to his friends that since he had written so many essays on urban parks, he could compile them into “a book as big as a family Bible.”³⁶ And this Bible would express reverence toward nature and its beauty. When he was writing this equivalent to the Bible, he had the same humble love as he did when reading the Bible, the words of God. Because of his frail body, Stiles was at the edge of death many times. Religion and its scripture might have been a bridge between life and death and a means to solve the puzzle of their connection. But nature, and all the other entities he was obsessed with on earth, like music, art, and science, displayed the happiness of life, worldly but beautiful. And it was this love of nature that made the two dramatically different persons, Stiles and Sargent, kindred spirits.

In the memoir of Stiles published in *G&F*, Sargent reminisced about Stiles's tie with nature in an unusually poetic and sentimental tone: “He loved Nature in all her aspects, delighting in the beauty of trees and flowers in the forest and in the garden, and in their harmonious arrangement; he loved the song of birds, quiet sylvan lanes and sparkling waters.”³⁷ Sargent could have not written words like this if he had not cherished the same emotion. Their interest in nature overlapped in many ways. Stiles regarded the defense of urban parks as his primary mission, and Sargent also believed

³⁶ “William A. Stiles, A Park Name Petition,” *New York Daily Tribune*, 16 December 1897, 9.

³⁷ Editorial, “William A. Stiles,” *G&F*, 13 October 1897, 399; W.A. Stiles, “Orchids,” *Scribner's Magazine*, February 1894, 190-205.

in their importance and actively promoted the park movement locally and nationally. Sargent was among the pioneers in preserving American forests and wild scenery, which was a subject Stiles was much concerned with. Sargent was the expert of experts in botany, dendrology, and horticulture, and Stiles was an enthusiastic learner of these fields and equipped himself with more knowledge than a mere amateur would have done. His essay under the title of “Orchids” published in *Scribner’s Magazine* in 1894 was regarded as the best on this topic.

Undoubtedly, Sargent and Stiles did not perceive nature and its relationship with culture and society through a single angle. Stiles, with his political insight and experience, observed the growing alienation of modern people from nature; Sargent, with his intimate knowledge of plants and the system of nature, discerned the approaching crisis caused by forest deterioration through scientific facts. But they both aimed to rectify the relationship between man and nature in an urban industrial society. However much Sargent disliked politics, he was one of the few people who realized the importance of government in forest preservation and lobbied among politicians to assert government responsibility for nature. Essentially, they pursued the same thing—searching for balance between nature and human beings in an ever-progressing civilization. This common goal ensured a solid foundation for their ten years’ cooperation. Their differences, however, made the magazine, the outcome of their cooperation, more interesting and comprehensive.

In 1887, when Sargent decided to publish a magazine to disseminate knowledge of botany, horticulture, and forestry, he recruited two persons, Stiles as the editor and

David A. Munro as the manager. Each of them had a two-year contract with Sargent. Munro had come to the United States from Scotland in 1872 when he was 28 years old. He had been working at the literary department of Harper Brothers before he became the manager of *G&F*. Stiles described him as “a capital man—bright—square—straightforward—has been brought up at Harpers.” He was toiling with Stiles to get money for the publication of the magazine when Sargent was sick, and managed to sell the first advertisement page to Harper for the full rate. But Munro did not write anything for the magazine and left *G&F* right after his contract ended. It is worth noting a short report titled “Mr. Munro Surprised” in the *New York Times*. The report itself was not dramatic at all, merely stating that Munro’s colleagues from Harper gave him a “pleasant surprise” by alluring him to Franklin Square and giving him a golden watch as a farewell gift. The interesting part of the story is that it said Munro resigned his job at Harper Brothers to be the manager of “the new literary journal *Silva*.”³⁸

What made *Silva* become *Garden and Forest*? As *Silva*, the magazine’s scope would have been substantially narrowed. Sargent regarded the magazine as an organ associated with the Arnold Arboretum and through which he intended to “extend and popularize the knowledge of trees and their cultivation, and of gardening and garden-botany.” In Sargent’s original plan, the new weekly magazine would be a scientific journal mainly focusing on botany, horticulture, dendrology, and forestry. But Sargent selected Stiles to be the editor. Probably no one in the nation was more

³⁸ “Obituary of David A. Munro” *New York Times*, 10 March 1910, 9; “Mr. Munro Surprised,” *New York Times*, 21 November 1887, 12.

qualified for this position than Stiles, who had good knowledge of plants, sincere love of nature, rich experience in editing and publishing, and a charming literary skill. Stiles's participation in the magazine helped realize the incorporation of "garden" and "forest." His close connection with Olmsted guaranteed the powerful and lasting voice of landscape architects in the magazine. His personal interest in politics and reality enabled the magazine to tackle some more complicated social issues. But his instinct and knowledge as an experienced editor allowed him to balance the proportion of various subjects and meanwhile, to reveal their connection.

In his letter to Olmsted in January 1888, Stiles thanked Olmsted for his suggestions that "the Park or Public works notes ought to be made features," for they would be the best ways of "connecting the paper with actual news." He stated clearly that he and Sargent had some divergence on various issues of the magazine. For instance, they disagreed with each other on the names and the order in which they were arranged in the prospectus. He complained that Sargent "crossed off Fernow's [name] for example—the best equipped man in the country for what we want." Even worse than that, Sargent did not want Charles A. Dana's name in the first issue, for he was afraid that "it would strike the scientific eye unfavorably." As the editor of *The Sun*, Dana was one of the most prominent journalists in the nation, but only an amateur in horticulture in Sargent's eyes. In his late years, Dana, like many East Coast elites, concentrated on his garden, and cultivated "a wonderful collection of plants" in his summer house, Dosoris on Long Island. For Sargent, Dana's name was a little inconsistent with the scientific hue of the magazine. But for Stiles, having

Dana's name in the magazine would enhance its social influence. And more importantly, Dana had been sympathetic with urban parks for years. Stiles, who did not want the magazine to be "Silva," was aiming to "keep too much technical science" imposed by Sargent out of the magazine, and to bring more "society" in, for he believed that all the topics discussed in their magazine were relevant not only to the development of science but also to the development of the society. Only by doing so, Stiles stated, could they make "a paper distinctly different & better than any yet seen."³⁹

With much compromise between the two editors, the first issue of the magazine appeared on February 29, 1888, under the title of *Garden and Forest*. Fernow's name was absent in the prospectus, but Charles A. Dana's name was listed along with the names of a group of landscape architects that were suggested by Olmsted and squeezed in by Stiles. Sargent designated himself as the "conductor" who would have "general editorial control" of *G&F*, and Stiles was the managing editor. The editorial office was in the Tribune Building, New York City, and the real editorial work in fact was on Stiles's shoulders. Most of the communication between Stiles and Sargent relied on regular correspondence, and sometimes telegrams and meetings.⁴⁰

The first issue also set up the goal for the next five hundred and thirteen issues—to cover a full range of topics from botany to horticulture, from forestry to landscape architecture. As the subtitle "A Journal of Horticulture, Landscape Art, and Forestry"

³⁹ Stiles to Olmsted, 7 January 1888, Olmsted Papers, Library of Congress.

⁴⁰ There has been no correspondence found between Sargent and Stiles. But Stiles's letters to other contributors, such as Olmsted and Pinchot, suggest that he corresponded with Sargent regularly. Sometimes, Sargent went to New York or Stiles went to Holm Lea.

indicated, the magazine was devoted to these subjects, but more importantly, it was devoted to promoting environmental awareness of the nation and re-emphasizing nature's role in the changing society through the discussion of these subjects.

The magazine was comprised of about nine to twelve pages of the main body, in addition to four or five pages of advertisement. In general, *G&F* included eight departments: the editorial department, new and little known plants, foreign correspondence, cultural department, forest, correspondence, recent publications, and notes. In some issues, there were also departments of entomology and of exhibits, expositions, and meetings of different associations. The editorial department mainly advanced four different themes: the preservation of the nation's forests, the protection of urban parks and advocacy of landscape architecture, the introduction of native species, and some general ideas of the relationship between nature and human beings. Stiles probably wrote most of the editorials on urban parks, and Sargent wrote those on native species and some articles on forestry. But other people, such as Mariana Van Rensselaer, also made contributions to this department.

The other departments had more focused subjects. The department of new and little known plants described newly discovered or exotic species from all over the world, especially from North America and East Asia, and many of them were sent to the Arnold Arboretum. Some specimens were sent to the editorial office of *G&F*, and if Stiles was not able to recognize them he would consult with either Sargent or other

botanists at Harvard.⁴¹ The foreign correspondence department involved correspondence on plants and botanical gardens from foreign countries, including especially the Royal Botanic gardens at Kew in London. The cultural department concentrated on horticulture. The forest department carried articles on forests and forestry theory and practice around the world, especially in Europe. The department of recent publication introduced books and articles published on all the related fields *G&F* was interested in. The entomology department discussed problems caused by various pests and disseminated information on new pesticides and other anti-insect techniques. The department of meetings, exhibits, and expositions reported activities of diverse associations in forestry, horticulture, and floriculture, and excerpts of papers presented in these meetings. It also recorded exhibits of flowers and plants, and had a series of essays on the Chicago world's fair in 1893. Some of the issues updated the wholesale and retail prices of flower and plant markets in various cities.

The correspondence department and the notes department were exceptional. The former published letters on diverse subjects, from general comments on the magazine to specific questions on the cultivation of one species, from amateurs' observations in their backyards to professionals' travels in the world, from the relationship between forest and civilization to the connection between urban parks and society. Sometimes there were editors' responses to questions or comments by the correspondents in this department. The notes department encompassed information from different sources on a mixture of topics, such as a short description of a new species, a brief obituary of

⁴¹ Stiles to Gray Herbarium, 29 September; 14 October; 15 November 1892, Semi-historical letter collection, Library of Gray Herbarium.

a person in a related field, or a note on a public project, like an urban park or a road, in an American or foreign city.

In addition to its well written and edited text, *G&F* was also striking for its numerous illustrations, which were regarded as superior to any other magazines in its field by various contemporary reviews of the magazine. Every issue had one to three illustrations, which could be drawings of gardens or parks, portraits of significant figures, designs of landscape architecture, photos of trees or plants. But many of them were paintings of plants by Charles Edward Faxon, a staff employee of the Arnold Arboretum and one of the best botanical draftsmen in the nation. He prepared 285 illustrations for the magazine and did most of the drawings for Sargent's *The Silva of North America*. Sargent thought that his works united "botanical accuracy with graceful composition," and he hailed Faxon as one of "the few great masters of his art."⁴²

All the departments and illustrations were supposed to promote the major mission that Sargent and Stiles bestowed upon the magazine: constructing a harmonious relationship between nature and humans in an urban industrial society. No matter what divergence the two editors held in terms of the contents and emphasis, they were coherent and concurrent in this fundamental but also ultimate goal. To fulfill this mission, the magazine had first to be educational. Second, it should help establish new professions, such as landscape architecture, forestry, and horticulture, in the

⁴² Sargent, *Annual Report of the Arnold Arboretum* (1918), the library of the Arnold Arboretum.

nation, so that these new professionals could apply their expertise to manage nature, and adjust the relationship between nature and society.

To meet the first purpose, both Sargent and Stiles thought that *G&F* was going to educate not only the general public, but also the policy makers. Its educational content ranged from elementary information on botany to theoretical discussions of the field, from the basic techniques of gardening to the most updated and complicated methods of horticulture, from the physical benefit of roadside tree planting to the spiritual implications of urban parks, from introduction of foreign ideas and practice of forestry to the instructive advocacy for sustaining the nation's forests. The magazine aimed to stimulate the love of nature among the American public through popularizing the knowledge of plants and revealing the beauty of nature; at the same time, it intended to focus the government's attention on preserving natural resources and beauty by showing them scientific facts and highlighting nature's relevance to the nation's agriculture, industry, spirit, and the future of its civilization.

From the outset of its publication, *G&F* clarified its educational intentions: "It will place scientific information clearly and simply before the public, and make available the instruction of all persons interested in garden plants [and] the conclusions reached by the most trustworthy investigation." Furthermore, "it will be a medium of instruction for all persons interested in preserving and developing the beauty of natural scenery." They believed that good taste in the appreciation and comprehension of natural beauty, and systematic knowledge in understanding nature's law, unlike the born love of nature, needed to be cultivated. "The general

public,” wrote the editors, “does not know good from bad in gardening, and, therefore, this is the requisite lesson to teach it.” “The truer gardener” was not to “cater to public taste, but to educate it.”⁴³

Meanwhile, the magazine declared that it would also “give special attention to scientific and practical forestry,” educating both the public and the government about the significance and urgency of rational management of forests. More than once, the magazine declared its role “in forming public taste and guiding public sentiment in this direction.” And repeatedly arguing that “Americans as a nation need instruction in the laws which govern forest growth and forest management,” *G&F* took on this responsibility. To make its voice stronger and more influential, *G&F* intended to collaborate with other publications, periodicals, newspapers, pamphlets, and books to defend its ideals and evoke the public’s awareness of nature. Both Stiles and Sargent combined their personal activities with the views *G&F* adhered to, in order to carry out the mission of the magazine.⁴⁴

For instance, in its opposition to the proposal to host the 1892 world fair in Central Park (before Chicago was chosen to hold the fair, New York City was another candidate), *G&F* applauded the chorus of the city’s public media. It pointed out that in the past, the newspapers of the city saved Central park from being ruined by different attacks more than once. And this time, the magazine exulted, “when the question of appropriating a portion of the park for the World's Fair was under

⁴³ The prospectus of *G&F*, *G&F*, 29 February 1888, ii; Editorial, “Public Gardens,” *G&F*, 11 November 1894, 529.

⁴⁴ The prospectus of *G&F*, *G&F*, 29 February 1888, ii; Editorial, “The Organization of the Trustees of Public Reservations,” *G&F*, 15 July 1891, 326; “The Future of American Forest,” *G&F*, 14 March 1888, 25.

discussion, the unanimity of the press, outside of the daily papers, was surprising. Journals in the special fields of architecture, art and engineering, and the leading literary, pictorial and religious weeklies, with scarcely an exception, took a firm stand against the invasion.” When these publications became an organized power, *G&F* did not doubt its influence in leading public opinion in the direction it had wished for years.⁴⁵

On forest issues, *G&F* searched for the same force among its counterparts. Being the first magazine in the nation that systematically discussed forestry matters, *G&F* forged an alliance with the *Century Magazine*, one of the nation’s most popular magazines among intellectuals, endeavoring to gain more support from the other publications, for the editors believed that “the public must be enlightened and aroused to active interest in the matter; and the concerted and energetic action of the press of the whole country can alone accomplish this.” Its frequent contributor J.B. Harrison had such a high evaluation of the educational function of *G&F* that he predicted optimistically that “if such a journal as GARDEN AND FOREST... could be read habitually for some years in every school and institution of learning in this state, and by ten or twenty thousand of its leading citizens, we might then have here such conditions of knowledge and thought as would constitute the soil and atmosphere needed to produce a better civilization, and a practical and effective system or method of forest preservation and management might then be evolved.” Certainly, the nation seemed in need of more such magazines and journalism. In one editorial, *G&F*

⁴⁵ Editorial, “Organized Protection for Parks,” *G&F*, 1 January 1890, 1.

indicated that “there is no subject which at present more urgently requires the attention of journalists, educators and statesmen, and of all thoughtful men in this country” than seizing the critical relationship between forest and civilization.⁴⁶

In addition to their pursuit of building alliance with other media powers, Stiles and Sargent were also trying to spread their ideas through their personal activities. After Stiles became the managing editor of *G&F*, he was associated with several other non-government organizations, such as the American Forestry Association, New Jersey Forestry Association (of which he was the vice president), New York Forestry Association, and the Tree Plantation Association of New York City. But the most important step Stiles took in his campaign for promoting nature in cities was his acceptance of a seat on the New York City Park Board in November 1895. For years, *G&F* had criticized the decisions and actions made by the old park board which turned out to be ineffective in defending New York City parks from defacement caused by different attacks. Worse than that, the previous park commissioners who were ignorant of the art of landscape architecture, showed no respect for the designers’ professional skills and choices, encouraging distortion and even destruction of their original intention. But the most intolerable aspect of the old commissioners was that they had no sympathy or interest in nature; neither did they feel the aspiration for nature among urban residents. Thus, when Stiles was asked by

⁴⁶ Editorial, “The Adirondack Forests in Danger,” *G&F*, 28 March 1888, 49; Harrison, “The Forest, Forest Interests in Pennsylvania, II,” *G&F*, 26 June 1889, 310; Editorial, “Forests and Civilization,” *G&F*, 19 December 1888, 505.

Mayor William L. Strong of New York City, he “accepted [the position] without hesitation, as he is an enthusiast on the subject of the possibilities of the parks.”⁴⁷

The appointment of Stiles was a victory celebrated by landscape architects and their supporters, no matter which political party they belonged to, because they had been urging the mayor to make Stiles a park commissioner for years. By tradition, the park commissioners occupied the positions for political or economic reasons, but had no expertise of the parks. Even Stiles’s colleagues on the commission, S.V.R. Cruger, Smith Ely, and Samuel McMillan grabbed the spots for political or economic interest. Both Cruger and McMillan represented the part of the “annexed district.” They were both Republicans and had investment in real estate in the city. McMillan was also “one of the wealthiest builders in New York.” Ely was the ex-mayor, and also the only Democrat on the commission, and his appointment was to balance the power of the two parties. Stiles was the only one among them who had “technical knowledge” about nature and art in those urban parks. The *New York Times* article declared that “there was no political influence[s] at work to secure the office for Mr. Stiles.” Being the managing editor of *G&F*, Stiles had “a National reputation among experts as the authority on the subject of parks, and his appointment as a Commissioner is considered the best and most fitting that has been made.”⁴⁸

G&F gave free space for Stiles’s pen, but the position on the board rendered the influence of his pen more practical and powerful. It was an unpaid job. For many people who accepted this position, the benefit was more access to public office. For

⁴⁷ “New Park Commissioners,” *New York Times*, 10 November 1895, 16.

⁴⁸ Ibid.

others, holding this position would facilitate their business, such as real estate, building, and transportation, for they had the power to approve and disapprove the construction of roads and parks, and to decide where and when to build them. But for Stiles, this job merely enabled his sentiment of urban parks to be accepted by policy makers. His interest in politics remained, but his ambition to hold office had vanished long ago. Every Thursday, Stiles went to the meeting of the park commission; and every Wednesday, a new issue of the magazine came out. These weekly issues echoed his actions in these weekly meetings, and mutually empowered his influence on urban parks. It was in one of these meetings on August 2, 1897, that Stiles collapsed and never recovered. He died of cancer on October 6, 1897.

What happened to his position on the park board was a frustration if he had lived to see that. Jefferson Seligman, the person who succeeded him, was a banker and a “prominent horseman and wheelman.” His appointment, “it is said, would be most acceptable to the riders, drivers, and wheelmen of New York.” Then, there was no one in the board who had a real love of nature or was concerned about its significance in an urban society. After Stiles’s death, a group of people in New York City submitted a proposal to the park board to name one of the newly built small parks after him. In their petition, they claimed that “for more than twenty years before he had been striving to lead the public mind to understand the legitimate purposes for which our parks were created and to prevent their misuse through unwise legislation or the mistaken views of their temporary custodians.” And his particular effort exerted on protecting Central Park made him the person only “next to Frederick Law

Olmsted and Calvert Vaux,” the two designers of the park, who presented the “usefulness and beauty” of “this glory” of New York City. But this petition was objected to by his previous colleagues with the excuse that Stiles had been living in Jersey City part of the time, and the parks could only be named after “the distinguished men of this city.” But then they proceeded to name one park after “an almost lifelong resident of Auburn, N.Y.”⁴⁹

G&F, the magazine on which he spent the last ten years of his life, did not want Stiles’s name and work to be blurred by time. In the memoir of Stiles, Sargent wrote: “His pen saved Central Park from the speedway which threatened to ruin its rural character and destroy its true value.... and he made it impossible to use Central Park for the Columbian Exposition.” “An educator in all that relates to parks,” Sargent asserted, “reaching the public ear through the press, which had unbounded confidence in his judgment and integrity of purpose, his [Stiles’s] service to the people has not been merely local; his example has stimulated and his words have instructed, and now in every American community there are who understand the significance of city parks and the difficulties which those who labor to make them most useful have to encounter.”⁵⁰

Two months later after Stiles’s death, Sargent ceased the publication of *G&F*, owing partly to the death of Stiles and partly to the financial difficulty. But it might also have been owing to Sargent’s disillusion with forest reform, an effort that began

⁴⁹ “A Park Name Petition,” *New York Daily Tribune*, 16 December 1897, 9; “A Park Name Petition, Mitchell E. Opposes,” *New York Daily Tribune*, 30 December 1897, 6.

⁵⁰ Editorial, “William A. Stiles,” *G&F*, 13 October 1897, 399.

while the magazine was being published but came to a confrontation about the same time as Stiles's death. In the ten-year run of the magazine, Sargent, like Stiles, also incorporated his work in the arboretum and forestry with the articles appearing in *G&F*. The arboretum work kept bringing him new glories, but the forestry endeavor finally disappointed him.

Applying *G&F* as his medium, Sargent reported the research of the Arnold Arboretum, exchanged views with his peers, and popularized the knowledge of botany and horticulture. It was in *G&F* where Sargent published his discoveries during the field trip in Japan in 1893, which later became a book, *Forest Flora of Japan*. This research was the foundation of the subsequent comparative research between the vegetation of East Asia and North America undertaken by the Arnold Arboretum. Also in *G&F*, Sargent published other series of essays, such as "Notes on North American Trees."

More importantly, the pages of *G&F* recorded Sargent's most active years in preserving the nation's forests and helped him win the support of public opinion and the attention of government. In 1888, Sargent proposed his own scheme for the management of the forests in the West. In this scheme, Sargent asked to withdraw all the public land in the West from entry and sale temporarily before a thorough survey was made. He also wanted the army to be the guardians of forests to prevent forest fires, the invasion of sheep, and illegal cutting and mining. And then, he urged the Congress to organize a forest commission composed of experts to investigate the forests in the West.

In the following decade, the inefficiency and ignorance of the federal government on forest issues kept convincing Sargent that his scheme was the practical and rational one. In 1891, forests reserves covering about 13 million acres were established by President Harrison, and *G&F* rejoiced. Sargent thought that this action could substantially change the situation of the forests in the West. But once again, he was disappointed. The newly designated forest reserves were not virtually protected by any government forces. This awareness, on the one hand, deepened his distrust of politics; and it further confirmed his view that only the army, which was least manipulated in the unpredictable political atmosphere, could prevent the nation's forests from all sorts of dangers. The successful care of Yellowstone National Park by a small body of army men provided a model to be emulated. He suggested transferring all the forest reserves from the Interior Department to the War Department, for the latter was better trained and less influenced by local power. On the other hand, Sargent, Stiles, and other conservation movement advocates, such as Gifford Pinchot and Robert Underwood Johnson, intensified their pressure on the government to push forward an investigation into the western forests.⁵¹

Finally their call penetrated the apathy of Washington, and in 1896 Secretary of the Interior Hoke Smith charged the National Academy of Science with organizing a forest commission to survey the forests on the public domain of the West. After the president of the academy, Wolcott Gibbs, a retired chemistry professor of Harvard, accepted the challenge, he thought immediately of Sargent. The commission

⁵¹ Editorial, "The Nation's Forests" *G&F*, 30 January, 1889, 49; "The Care of the National Forest-reservations," *G&F*, 23 August 1893, 351.

consisted of Sargent as the chair; Gibbs (ex-officio); William H. Brewer, a Yale botanist; General Henry Abbott of the Army Corps of Engineers; Alexander Agassiz, Harvard zoologist; Arnold Hague from the U.S. Geological Survey; and Gifford Pinchot who was listed as a “practical forester.” John Muir was invited by Sargent to join them as an adviser.

Muir and Sargent had vaguely known each other before 1893 when Muir called on him at Holm Lea. The first time Muir’s name was mentioned in *G&F* in 1889, it was included in a brief report on a group of adventurers who climbed Mount Rainier. Muir was introduced as a “well-known student of the Cordilleran glaciers.” In the following years, when *G&F* paid increasing attention to national parks, Muir’s name and views appeared more often. When Stiles wrote his editorial “National Parks,” he referred to Muir’s essay in *Century Magazine* as an authoritative account of this subject.⁵² The 1893 visit left a good impression on both Sargent and Muir, and their friendship went deeper when they became more acquaint with each other’s works.⁵³

Muir might have been even more different from Sargent than Stiles was, for his enthusiasm for wild mountains was totally egalitarian. It is hard to evaluate to what extent Muir’s passion had penetrated the stubborn Harvard professor’s reserved manner, but the former’s sympathy and appreciation of trees in all their aspects

⁵² In a letter to Johnson, Stiles wrote: “Just now, I am more interested in rescuing that grove of Sequoias in Tulare County than in Yosemite or Yellowstone. I have kicked up quite a stir to this end through various newspapers and by getting people to write to Secretary Noble to keep this bit of Government land withheld from entry. It is the last grove of Sequoias left and probably the very finest of all, being not only a collection of old trees, but having young ones to continue succession forever. I send you last week’s GARDEN AND FOREST which contains an editorial on National Parks, and which was meant to invite special attention to this Grove.” Stiles to R.U. Johnson, 13 August 1890, *The Century* Collection, New York Public Library.

⁵³ Editorial, “A Mountain Meadow,” *G&F*, 3 July 1889, 314; “National Parks,” *G&F*, 6 August 1890, 377.

certainly stimulated resonance in Sargent's heart. In an editorial published in 1896, under the same title as Muir's first book *The Mountains of California*, Sargent did not stint on his compliments on his friend's achievement. He describe the book as a "fascinating" work in which "Mr. John Muir tells this history and describes the forests, their trees, and several of the animals which live among them, speaking out of a full knowledge and with the feeling and affection of a devoted lover of nature.... No one has had such opportunities for studying the Sierras, or knows them so well; and no one, it may be said, has done so much to preserve their beauty by securing the establishment of the Sierra Forest Reservations." Sargent's pen loyally pictured Muir as a lonely figure thinking and roaming in California's mountains with the lowest subsistence and "without a gun or any companion but his own thoughts." Rejoining with such a figure in Chicago, Sargent set out for his three month journey to inspect the western forests at the beginning of July 1896.⁵⁴

This journey was the longest, hardest, but probably the most interesting and instructive one Sargent had ever taken in western America. The commission, except Gibbs and Agassiz, gathered in Montana in mid-July, for Pinchot had left about a month earlier than the rest of the members did. From there, they went through Washington, Oregon, California, and Arizona, and finally arrived in Colorado and then headed back to the East in October.

In these three months, the connection between Muir and Sargent became more intimate when they were located trees, but a conflict between Pinchot and Sargent

⁵⁴ Editorial, "The Mountains of California," *G&F*, 26 February 1896, 81.

began to take form. Sargent had regarded Pinchot as the most promising forester in the nation, and Pinchot had treated Sargent as a mentor. But this investigation journey led Pinchot to suspect Sargent's knowledge of forestry and even to disdain completely his judgment. He thought that Sargent only saw "individual trees," not a "forest." In his autobiography *Breaking New Ground* published in 1947, Pinchot was still complaining about Sargent's ignorance of forestry and his inertia on the journey and in the work afterwards. On Sargent's part, he was annoyed by the young man's aggressiveness. He had been praised as the authority on forest issues for almost two decades, and it was hard for him to tolerate any challenge, especially from a much younger person. After they were back, Pinchot urged Sargent to prepare the report as soon as possible so that they could submit it several months before the end of the Cleveland administration. But Sargent hurt his ankle badly soon after he was back home. Right after he recovered from this injury in December, his mansion in Holm Lea caught fire and a wing of it was destroyed on the day after Christmas. So when Sargent finally could sit down with the other members of the commission to discuss the report, it was already January 1897.

The commission proposed establishing 13 forest reserves, adding 20 million acres to the existing reserves. On February 22, Cleveland "signalized the close of his administration by taking an important step toward solving the difficulties of forest preservation on the public domain of the United States" by approving this proposal. The western congressmen were infuriated and vehemently opposed these reserves for they thought that the reserves encumbered the development of local economies. Led

by a Wyoming senator, Clarence Clark, the senate proposed an amendment which intended to reopen the forest reserves on February 28. *G&F* raged that “the Senate, deceived by the false statements of the representatives of western mining and lumber companies who became the champions of this amendment, passed it without hearing a single word of protest.” Cleveland left the office on March 4, leaving the question of the reserves unsettled.⁵⁵

The new Republican president, William McKinley, offered hope for Sargent and the rest of the commission. Sargent managed to have two meetings with the new president. But in the first meeting, he found out that McKinley was ready to please the congress by revoking the reserves, for in his mind, there were many other more severe troubles in the nation to be solved than saving trees. Sargent went alone to see McKinley for the second time, and gave him a “rather stormy interview.” Sargent “explained to him [McKinley] that the President of the United States could not afford to put himself in the position of helping western timber thieves.” Finally, Sargent achieved half of his goal—McKinley “gave up his project,” but suspended all the newly established reserves, except for the two in California for seven months. On May 1, the commission finished the report, which Sargent claimed later was “written entirely by General Abbott and myself, the Secretary had nothing to do with it as he had done little work with the Commission.” But the report, instead of insisting on placing the forests under the entire control of the Department of War, suggested army

⁵⁵ Editorial, “The New Forest Reserves;” *G&F*, 3 March 1897, 81; “Congress and the Forest Reservations,” *G&F*, 17 March 1897, 101.

guardianship as a transitional step before the trained civilian foresters could take full responsibility. Everyone on the commission signed, including Pinchot.⁵⁶

For Sargent, his job with the commission was over. Although not completely satisfied, he had expected a worse outcome. But for Pinchot, he wanted much more for his own political ambition and for the establishment of his profession. Several days after he signed the report, he went to Washington and accepted an appointment from Cornelius Bliss, the Secretary of the Interior, as a special forest advisor to reinvestigate the western forests, placing the report aside. Sargent was shocked, feeling betrayed by this young man he had supported and advised for almost a decade. In his letter to Pinchot's tutor, the German forester Dietrich Brandis, Sargent sadly stated that Pinchot threw over "his old friends for immediate political position." With his own dislike of politics, Sargent could not understand or accept Pinchot's choice at all. He refused Pinchot's gesture for reconciliation, and wrote him a harsh letter: "Different persons have different standards which govern their conduct and yours and mine are evidently so unlike that it is useless to discuss the subject of your letter on April 16th."⁵⁷

In the issue published on 15 December, 1897, *G&F* discussed forestry for the last time. In this editorial titled "Protection of the National Forests," Sargent wrote:

The experience of the last twenty-five years has shown what the civil agents of the Interior Department can accomplish in protecting the property of the Government, and the utter futility of trying to enforce the laws of Congress and the regulations of the

⁵⁶ Sargent to Johnson, 25 November 1908, Sargent Papers, Library of the Arnold Arboretum.

⁵⁷ In his letter to Sargent on April 16th, Pinchot quoted the letters between Brandis and Sargent, and defended his action in accepting the appointment from the Interior by arguing that both Hague and Brewer were aware of this and supported him. Gifford Pinchot to Sargent, 16 April 1898; Sargent to Pinchot, 20 April 1898, Pinchot papers, Library of Congress.

Department without the aid of soldiers, who have shown over and over again their ability to protect successfully and economically forests in the national parks from fire and pillage after the civil officers of the Interior Department had proved themselves entirely incapable of effective action.

Pinchot's action and the suspension of the forest reserves convinced Sargent once again that politics was undependable and politicians were untrustworthy. In a letter on the 24th to Muir, who was standing on Sargent's side on the commission matter, Sargent asked: "What are we going to do about forestry matters?" He did not want to "sit idly and allow Bliss and his crowd to exterminate them [forests]," but he had no idea how to defend them. Stiles's death made him lose his "best hold on the New York Papers," and the ceasing of publication of *G&F* disabled him to "have any satisfactory way of reading the public."⁵⁸

Sargent, in fact, could do nothing, and neither did he try to do anything more. He was completely disillusioned with politics. In the next three decades, he confined himself to the Arnold Arboretum and the study of "trees and their scientific aspect." He ended *G&F* and, officially and privately, he attributed this action to its financial failure. In the same letter to Muir, he moaned that "the year ends badly for me because it will see the demise of *Garden and Forest*. For ten years I have worked like a dog to get this paper established because a paper of the kind seems needed in this country, but it is no go." He had put too much money in the magazine, and could not "sink more."⁵⁹

⁵⁸ Editorial, "Protection of the National Forests," *G&F*, 15 December 1897, 490; Sargent to John Muir, 24 December 1897, Muir Papers, reel 9, frame 2375.

⁵⁹ Ibid.

But was financial failure the only reason, or the fatal reason, for the end of *G&F*, the first experiment in the United States to initiate a forum involving a wide range of disciplines with environmental concerns? Probably not. Sargent might have predicted the doomed fate of *G&F* no matter whether a financial problem existed or not. Stiles was dead, Olmsted was old and sick, and Pinchot was an enemy. How could Sargent, by himself, maintain the comprehensiveness of *G&F*? With those other voices silenced, what could make *G&F* distinct from the other scientific or semi-scientific magazines? If *G&F* had survived, it would have become another *Journal of the Arnold Arboretum* started by Sargent in 1919, an interesting but purely scientific magazine.

G&F's educational endeavor was not futile. Its points were frequently quoted by the nation's most popular newspapers and magazines, and public opinion was radically transformed in the decade of its publication through direct and indirect reading of its articles. But the other mission of the magazine was even more successful: shaping the new professions. In its pages, various professions were searching for their own identities and establishing their own principles. But the question is, to what extent these new experts, eager to gain their own legitimate spots, would appreciate the comprehensiveness of view that *G&F* tried to promote.

Chapter 3

Shaping New Professions

In the fifth issue of *G&F* published in 1888, there was a short letter written by Liberty Hyde Bailey titled “Landscape Gardening: A Definition,” which responded to a series of articles by Mariana Van Rensselaer having appeared since the first issue of the magazine under the same title. In this letter, Bailey agreed with Van Rensselaer that landscape gardening was a fine art that implied elements much more complicated than arranging flower beds or planting trees. But he suggested that landscape gardening had to apply some “industrial art” to make it “material, tangible.” And this industrial art that shaped “the ground, plants the trees, makes the walks and drives” was a “legitimate branch of horticulture.” Bailey chose to call it “landscape horticulture,” which, according to him, belonged to the category of the “artisan,” not the “artist.” Furthermore, Bailey argued that “nearly all our professed treatises upon landscape gardening do little more than designate the most important rules and operations of landscape horticulture,” for it was difficult to give rules to fine arts. At the core of this letter, Bailey, the leading horticulturist of the nation, did not regard landscape gardening as a new independent profession with its own principles and particular training, ranking equally with horticulture instead of being subordinated to it.¹

¹ Liberty Hyde Bailey, “Landscape Gardening,” *G&F*, 28 March 1888, 58.

Neither the editors of the magazine nor Van Rensselaer could accept Bailey's argument. The editors argued that it was unnecessary to "give the name of 'landscape horticulture,' or any narrowly distinctive name" to the practical work of landscape gardening. They believed that "practical considerations must always mingle with and largely limit and control aesthetic considerations when their works are in question." Any effort to try to separate them "in theoretical expositions of the art of landscape gardening, in its practice, or even in its nomenclature, would be a grave mistake." Training in landscape gardening was compounded of both the cultivation of artistic taste and the acquaintance of practical and scientific knowledge. Although maintaining different opinions, the editors of *G&F* were pleased to publish a letter like this, for "it is desirable to create discussion."²

The late 19th century was a fluid period for many fledgling professions, whose advocates were seeking definitions, identities, and disciplines for their own domains. One of the major missions of *G&F* was to provide a forum for different voices to shape new professions, such as landscape architecture and forestry, and to bestow new theories and concepts upon some traditional professions, such as botany and horticulture. The editors and contributors all had serious concerns with nature and its relationship with human beings, but their focuses varied in a wide spectrum and their views diverged on different levels. If their common ultimate goal was to sustain the progress of their civilization based on the fulfillment of the harmony between man and nature, they were not unanimous on the immediate strategies. The urban

² Editorial note, *G&F*, 28 March 1888, 51.

industrial society became increasingly sophisticated, from which derived a more complex man-nature relationship. People with specific vision and training found the need to apply particular expertise to deal with different aspects of this relationship, and they believed that only by doing so could the management of nature and society achieve rationality and efficiency.

In an editorial reviewing a report by F.L. Olmsted and J.B. Harrison, "Observations on the Treatment of Public Plantations; More Especially Relating to the Use of the Axe," the editors criticized the general public's "little respect" for "technical knowledge," and argued that "the changes in the conditions of life here during the last twenty-five years have rendered it far more necessary than it was before. The need of special training in the management of public parks increases steadily, just as the requirement for technical knowledge in the other pursuits of civilized life is made more imperative by the increasing variety, complexity and costliness of modern ways of living." Both the editors and contributors thought that their search for professionalization was consistent with the ethos of modern civilization; it was a universal trend coming along with the urban industrial system that they helped propel. To adapt to the "variety, complexity and costliness" of modern society, science ought to be continually subdivided and the distributions of social labor ought to keep being narrowed down. The new professionals' ambition could not be satiated by private patrons and employment. Motivated by professional esteem and the sense of social obligation, they looked forward to reforming the entire society. The new relationship between culture and nature, according to the magazine,

should be constructed on the application of expertise. The motive of professionalization was the faith in the expanding potency of modern science which would, these new professionals and their supporters thought, enable people to understand the law of nature in a more profound way so that they could further incorporate nature into the system of civilization and make it better serve the needs of mankind.³

During its decade of publication, *G&F* attracted more than 630 contributors, of which around 240 contributors wrote more than three pieces for the magazine.⁴ Geographically and socially, these people spanned a wide range. They included authors from New England and New York, but the magazine also maintained a regular group of contributors from the Midwest, the Pacific coast, and foreign nations like Germany, France, England, and even Japan.⁵ Among these contributors, there were scientists, such as some leading domestic and foreign botanists, entomologists, and horticulturists; experts with professional training, such as florists, nurserymen, landscape architects, and foresters; and “amateurs,” such as art critics, journalists, ministers, and mere nature or plant lovers. The majority of these contributors were male, but there were about thirty female authors writing for the magazine, and several of them were among the most regular and influential figures of *G&F*.

What united these people from diverse backgrounds was their interest in the plant world, and their awareness of nature’s indispensability in civilization. Founded on

³ Editorial, “Thinning Plantations,” *G&F*, 26 June 1889, 301

⁴ The data excludes contributors whose surnames and given names were shown only in initials.

⁵ There were at least two contributors from Japan, Inaso Nitobe and H. Yoshida, introducing Japanese plant species.

this general theme, the magazine, however, did not seek uniformity among its contributors. In terms of their vision of nature, some of them were more passionate for gardens, and some of them were more attracted by forests; some of them were more fascinated with cultivating individual plants, and some of them were more engaged in designing a comprehensive landscape; some of them enjoyed more tamed scenery, and some of them appreciated more rugged wilderness; some of them valued the beauty of nature above other issues, and some of them addressed the usefulness of nature over everything else. Their social concerns were not completely the same either: some of them worried more about urban and industrial problems, while others focused more on rural and agricultural development; some of them had political ambition, while others only pursued academic achievement; some of them put more emphasis on government responsibility and regulation, while others placed their hope on the improvement of public intelligence and morality. With regard to their attitudes toward science and art, some of them relied solely on science, while others also sought assistance from art. Having more interest on one side of nature and society did not mean that they were indifferent to or ignorant of the other questions. In fact, many of these contributors not only wrote on multiple topics for the magazine, but also worked on a variety of issues in their careers. But most of the contributors, to a greater or lesser degree, were striving for legitimate positions for their own professions in a new urban industrial society.

The major aim of the progressive conservation movement initiated by these urban professionals was to establish the authority of expertise in regulating natural

resources, putting professionals with specialized knowledge and training in control but transcending the trap of politics. For the contributors and editors of *G&F*, the natural resources in need of regulation included not only the domains outside cities, such as forests, rivers, prairies, mountains, and fields, but also those urban spaces, such as streets, play-grounds, parks, and the natural entities within cities, like trees, flowers, and plants. Different forms of resources demanded experts from different fields. Some of their work overlapped, but the methods they applied and the goals they pursued differed dramatically.

Thus, this chapter asks: according to the editors and contributors, what role should expertise play in managing nature? More specifically, it tries to answer how they redefined botany and horticulture and their relationship, and how they identified landscape architecture and forestry as new professions. To answer these questions, it is also necessary to know who these contributors were, what they did and thought, and what their interaction was. It would not be feasible to examine the career and thought of 600 contributors one by one, and some of the important contributors' history is not even traceable. But from the essays they wrote for *G&F*, it is possible to divide their thought and interest into several categories. Through analyzing the lives of some representative figures, this chapter intends to reveal the collective mind of their categories, and at the same time, to discern their differences and even conflicts.

Botany was the scientific foundation of *G&F* and of all the fields and new professions it intended to promote. The magazine published several dozens of

editorials on botany education, prominent botanists, the relationship between botany and other fields, the new botanic discoveries, and the descriptions of native and foreign species. In its pages, *G&F* involved almost all the prominent names in American botany in the late 19th century, such as William J. Beal, Charles E. Bessey, John M. Coulter, William G. Farlow, Merritt L. Fernald, George L. Goodale, Edward L. Greene, Charles Mohr, Louis Hermann Pammel, Cyrus G. Pringle, Mary Treat, William Trelease, and Sereno Watson, and some important figures from foreign nations, such as John Macoun from Canada, Max Leichtlin from Germany, and William Botting Hemley, George Nicholson, and William P. Watson from the Kew Royal Gardens in England.

From all over the world correspondents sent to the magazine their discoveries and research, among which some traditional fields, represented by taxonomy, still held a significant niche in the development of botany. Collectors sponsored by government or private agencies set out to explore new regions and unknown species, and many of their expeditions and new discoveries were reported by *G&F*.⁶ But the magazine also encouraged the transition from traditional botany to new botany, leading botanists from fields to laboratories. Historian Andrew Denny Rodgers argued that American botany experienced a transition in the last three decades of the 19th century, which

⁶ For examples, *G&F* published two series of articles by William Botting Hemley on his botanic discoveries in China and Eastern Burma in 1889 and 1891 respectively; Edward L. Green introduced the flora of California in a serial from 1889 to 1892; Cyrus G. Pringle reported his expeditions in Mexico in different series throughout the years of *G&F*; Elisha N. Plank's investigation of Texas flora appeared in *G&F* in a series of 25 pieces from November 1892 to May 1895, and another series comprising 5 parts in 1896; John G. Jack's "Notes from the Arnold Arboretum" recorded the botanical discoveries of the Arnold Arboretum from all over the world; Sargent's own flora expedition in Japan was also published by *G&F* in a series of 28 segments in 1893.

freed “most botanists from a sole interest in taxonomy... The work of the new subjects of morphology, physiology, mycology, ‘vegetable diseases,’ anatomy, and the like, was taking effect.” In the essence of this transition, botanists studied not only the external side of plants, like their forms and habitats, but also the internal aspects, their structure and variation.⁷

While botany became gradually diversified, it underwent another equally conspicuous change under the “impact of a gathering momentum seeking to develop an American scientific horticulture and agriculture.” Thus, the practicality of botany was addressed by some leading botanists. Through studying the internal composition of plants, these botanists believed that they could push botanical studies to learn “what nature could be made to perform,” rather than merely to focus on “what nature had done.” Thus, many preeminent botanists showed zealous interest in agriculture, horticulture, and forestry, and some of them even switched their main research interest to these new scientific fields.⁸

This transition traced its origin back to the Harvard botanist and evolutionist Asa Gray. Besides his crucial effort in the New World in spreading Darwinism, which provided the theoretical foundation for the diversification of botany, and his multifaceted interest in fields other than taxonomy, Gray also influenced the succeeding generations with his egalitarian social views. Growing up in a humble family himself, he strove to make science accessible to anyone who wanted to learn. Rodgers pointed

⁷ Andrew Denny Rodgers, *American Botany: 1873-1892, Decades of Transition* (Princeton: Princeton University Press, 1944), 199.

⁸ Rodgers, *American Botany*, 129, 278.

out that Gray believed that “since science was combined with the open field and forest, as well as the farm field and garden, science service was offered to all worthy comers, and no monopoly would ever be possible nor was it desirable.” Many of his disciples followed not only his academic interest, but also his endeavor to break down the monopoly of science, imparting it to common people, especially to farmers, florists, and gardeners.⁹

Coming from various social backgrounds and working in different regions, almost all of these American botanists listed in *G&F* were tied to Gray.¹⁰ Among them, there were Harvard botany professors with diverse specialties—William Farlow of cryptogamic botany and pathology, George Goodale of physiology, and Sereno Watson of taxonomy. With Sargent of horticulture (which emerged as a field of science in the years of *G&F*), these four persons were the direct protégés of Gray and chosen by him. Sargent, with his awkward position as a non-scientist, had not been getting along with his colleagues in the beginning years of his Harvard career. He looked down on Goodale as “one of the ‘mere physiologists’,” who “did not impress him much; Watson was a quiet man, and Sargent saw little of Farlow.” But according to his biographer, later, when Sargent “felt secure in his position, he professed to respect them all, Goodale included.”¹¹

⁹ Rodgers, *American Botany*, 277.

¹⁰ Edward Greene was probably the only one among them who challenged Gray’s authority. He believed that species were immutable.

¹¹ Sutton, *Charles Sprague Sargent*, 44, 45. It is hard to know the situation of the relationship between Sargent and Cyrus G. Pringle during the publication of *G&F*. Pringle had been Sargent’s collector in the West when Sargent was in charge of the botanic exhibition of the Natural History Museum of New York City in 1882. But Sargent’s bossy attitude and unjustified criticism infuriated

All of them wrote frequently for *G&F*, and Farlow was in charge of the editorial department of cryptogamic botany and plant disease of the magazine. Watson wrote around 40 articles for the “New and Little Known Plants” department, introducing new species, in the early years of *G&F* prior to his death in 1892. Goodale published a series in the second volume of the magazine in 1889, titled “Principles of Physiological Botany as Applied to Horticulture and Forest,” and comprising 20 segments. In the editorial introduction of this series, *G&F* confessed that this idea was inspired by a meeting of New York florists in 1888 in which some of its members pointed out that “even from a practical point of view some knowledge of botany is necessary to plant growers who aim to get the most out of their business.” Thus, the editors invited Goodale to write this series of articles for they intended to popularize scientific knowledge and make it more practical. At the end his series, Goodale stated that “the history of science has shown over and over again that the results of pure, scientific research are, sooner or later, likely to be turned to the highest practical account.” This was, in fact, a general goal of *G&F*. Science should set its feet down to earth.¹²

Besides these Harvard professors, botanists from the West and the Midwest also wrote for the magazine. The relatively primitive vegetation in these districts fostered pioneering botanists there to focus more on the observation of and research on native flora, its structure, history, and relationship with its environs. While botany itself

Pringle, and their cooperation terminated. Sargent’s reputation among collectors, according to Sutton, had never fully recovered because of this event.

¹² Editorial, “Professor Goodale’s Botanical Articles,” *G&F*, 2 January 1889, 2; George Goodale, “Principles of Physiological Botany, XX,” *G&F*, 22 May 1889, 250.

became more and more departmentalized, its new specialized methods and theories, such as physiology and morphology, were applied to prepare for the emergence of a new science, “the science of the development of communities.” As a new word on the scientific map, ecology was first used by Ernst H. Haeckel in 1866, but it was not widely adopted by botanists and other scientists until Eugenius Warming published *Plantesamfund* in 1895 (*Oecology of Plants; An Introduction to the Study of Plant Communities* in its English version in 1909).¹³ Although many of *G&F*’s botanical contributors stood at the forefront of the field, they tended to use the older term “nature’s economy” in their writings for the magazine. Strictly speaking, *G&F* was more concerned with the relationship between science and society than the development of science. But some of its articles implied some hints of the novel field.

One of those Midwestern contributors, Charles E. Bessey had been born in 1845 in Wayne County, Ohio. He went to Michigan Agriculture College and graduated with a Bachelor’s degree in science. Having no interest in civil engineering, Bessey went to study botany with Gray at Harvard in 1872 after he accepted a faculty position at Iowa Agriculture University in 1870. With a microscope in his suitcase, he established a botanical laboratory on the frontier in 1873. Later, he became the professor of botany at the University of Nebraska, and also served as dean of the Agricultural College there. Bessey was devoted to the establishment of “new botany.” In the meantime, he was interested in forestry and undertook tree planting experiments which led to the planted forest reservations in Thomas and Cherry

¹³ Worster, *Nature’s Economy*, 204.

Counties of Nebraska. Most importantly, Bessey made the University of Nebraska one of the two national centers for ecological training. The other center enhancing the training of ecology was established at the University of Chicago by John M. Coulter, who was one of Gray's most influential pupils and friends.¹⁴

Although his own study still concentrated on individual plants, some of Bessey's works revealed his observation of the flux of the native flora as a unity. In an essay he published in *G&F* in 1897 titled "Are the Trees Receding from the Nebraska Plains?," Bessey indicated that upon the plains of Nebraska there occurred "the slow changes due to natural causes, and having nothing whatever to do with men's activities." He found out that "some of the species are not receding from the Nebraska plains, and that as to other species the evidence of advance or retreat is wanting." Undoubtedly, Bessey's own research interest greatly inspired his talented student, Frederic Clements, who became one of the leading early ecologists in the world. With other scientists, Clements forged the theory of the "climax" based on his own study of Nebraska vegetation, a theory that addressed the "successional development toward a climax equilibrium" in the economy of nature.¹⁵

Another figure tied to the Midwest was William J. Beal, who was born to a Quaker family in 1833 and earned his A.B. degree from the University of Michigan. Later he went to study at Harvard, training with Louis Agassiz for a while, and then studied botany systematically with Gray, from whom he learned the two emerging

¹⁴ Coulter wrote only two essays for *G&F*, introducing some new species.

¹⁵ Bessey, "Are the Trees Receding from the Nebraska Plains?" *G&F*, 17 November 1897, 456, 457; Worter, *Nature's Economy*, 202.

fields, physiology and morphology of plants, and heartily accepted Darwin's theory of evolution. Since 1871, Beal had been teaching at the Michigan Agricultural College, where he remained until his retirement in 1910. Throughout his life, he advocated his idea of "new botany," which intended to make students observe and draw their own conclusions. Although he was one of the first botanists who established a well equipped laboratory for botanic research, he did not intend to separate work in the lab from activities in the field. In an essay titled "Methods of Botanic Study," Beal argued that "in the new botany, for which we are speaking a good word, we set pupils to studying plants before books.... Free use is made of our botanic-garden, the crops in the vegetable-garden, fields and experiment station, and the thickets along the river." In the meantime, he paid special attention to forestry. In *G&F*, he reported the development of forestry issues in Michigan, especially the management of a college forest preserve that he thought would show some "practical instruction of forestry" and "invite suggestions as to the best method of managing our woodlands."¹⁶

Louis H. Pammel was another botanist writing for *G&F*, who showed enthusiasm for forestry issues. Born in La Crosse, Wisconsin in 1862, Pammel received a degree in agriculture from the University of Wisconsin. Later he moved to Cambridge, Massachusetts, and became Farlow's private assistant. Then, he went back to the Midwest, teaching at Washington University, St. Louis. Finally he settled down at Iowa State College as the professor of botany, the sole faculty in his department at the

¹⁶ Beal, "Methods of Botanic Study," *G&F*, 9 April 1890, 175; "Forestry at the Michigan Agricultural College," *G&F*, 10 April 1895, 149.

time. His major botanic contribution was in taxonomy, but he had particular interest in the native vegetation of Iowa, and became one of the most active advocates promoting the conservation movement in Iowa.

When Pammel was at Washington University, he served as assistant to William Trelease, the first Englemann professor in the Shaw School of Botany. A native Northeasterner, Trelease earned his degree from Cornell but accepted an appointment teaching botany at the University of Wisconsin, which brought him to the Midwest. His study of mycology interested Gray who played an important role in placing Trelease at the position at Washington University. In St. Louis, Trelease seized another opportunity that made him the first director of the Missouri Botanical Garden. As the biggest botanic and horticultural patron in the Midwest, Henry Shaw was the founder of the garden. He left the garden to public and academic use in 1889 through his will, which required the garden to “be forever kept up and maintained for the cultivation and propagation of plants, flowers, fruit and forest trees, and other productions of the vegetable kingdom; and a museum and library connected therewith, and devoted to the same and to the science of botany, horticulture, and the allied objects....” Shaw’s fascination with plants was furthered and broadened by Trelease’s professional training, and in the Louisiana Purchase International Exposition held in St. Louis in 1904, Trelease proudly claimed that “11,357 species and varieties of plants were in cultivation” in the garden.¹⁷

¹⁷ Emanuel D. Rudolph, “One hundred Years of the Missouri Botanical Garden,” *Annals of the Missouri Botanical Garden* 78, no. 1 (1991): 5, 6.

In many ways, the Missouri Botanical Garden resembled the Arnold Arboretum, but their difference was also noticeable. Shaw was an adherent of “gardenesqueness” which was “a museum-like approach to planting which arranged plants and trees as specimens with the context of the landscape.”¹⁸ It placed more emphasis on the cultivation of individual plants and less on conceiving a natural landscape through the imitation of nature. Another public amenity in St. Louis donated and established by Shaw was Tower Grove Park, next to the garden, which carried on the same style. Unlike Sargent, who had a strong personal taste for the natural style and was loyal to Olmsted’s artistic ideal, Trelease did not pay much attention to the landscape design of the garden. In terms of garden administration, however, they had at least one view in common, which was the relevance of horticulture in making a garden thrive.

In the decade when *G&F* was published, horticulture grew rapidly in many dimensions. The most direct and strongest impetus stimulating this growth came from the expanding urban market promoted by urban residents’ needs for the so-called “quality of life.” Having different expressions, such as increasingly diversified appetite and more refined and popular demand for decorations, this need further commercialized nature and its products under the assistance of newly invented chemical and mechanical techniques. New species of domesticated fruits, vegetables, and ornamental flowers were produced every year. The magazine celebrated that “as our vast territory has been brought under cultivation, all plants, and especially those

¹⁸ Carol Grove, “Aesthetics, Horticulture and the Gardenesque: Victorian Sensibilities at Tower Grove Park” (Ph.D. diss., Univ. of Missouri, 1998): 10.

grown for fruit, have responded with wonderful facility to the demands which new climates and new human wants have placed upon them.” Horticulture, like agriculture, was to make nature act according to human will and demand. But the latter intended to meet human beings’ elementary need for subsistence, while the former was to satiate human desire beyond survival. Horticulture as a practical business would not blossom until a large number of people were not toiling on the land, striving for basic existence. An urban society endowed horticulture with many new characters.¹⁹

G&F was primarily a magazine devoted to horticulture. It regularly reported the activities and meetings held by the societies of horticulturists or florists in different states, updated the wholesale and retail price of flowers, plants, fruits, and vegetables in New York and Boston once in a while, and most importantly published hundreds of articles and notes on new methods, machines, pesticides, and fertilizers applied in horticulture, in addition to those on the introduction of several hundred newly cultivated species. Out of its more than 600 contributors, there were at least 500 persons who could call themselves horticulturists. As a hobby, horticulture was prevalent among different social classes; but as a profession, it was a vaguely defined concept. What was horticulture after all? Should horticulturists be equipped with adequate scientific knowledge, knowing not only how to grow plants in some ways, but also why to grow them in those ways? Could horticulture also be a field of science, having its own theories contributing to the general advance of science? Was

¹⁹ Editorial, “Horticultural Novelty,” *G&F*, 14 February 1894, 61.

horticulture a hobby or a profession? And what were the legitimate sub-fields of horticulture?

Horticulture's major subject is cultivated plants, including trees, fruits, vegetables, flowers, and other forms of plants. It had been traditionally regarded as manual work, and conventional horticulturists had relied more on experience and skills than on science. But in the late 19th century, some significant changes occurred to horticulture which addressed its scientific aspect. Horticulture was divided into scientific horticulture and practical horticulture, closely related but having different intentions. Scientific horticulture focused on research on cultivated plants, through which scientists tried to explore the laws of nature in new dimensions. The practical horticulturists paid more attention to the application of these plants to meet some social need. Many practical horticulturists also did experiments and studied new methods, but they were captivated by individual plants and rarely attempted to interpret the relationships between the plants they cultivated and the broader natural world as scientific horticulturists did.

The new science of horticulture was trying to broaden the boundary of botany, which had been confined entirely to wild plants and their environments by incorporating the cultivated plants into its system. In an editorial published in 1892, the editors wrote that it was "natural in earlier days, when there was little attempt to apply science to cultivation, but since the theory of evolution has come to be accepted, a new purpose has been given to the study of all natural objects, and cultivated plants especially have gained a fascinating interest because they furnish such conspicuous

examples of variation and heredity. The great mass of material which the multiplied species of cultivated plants afford can be made to illustrate the accumulative effect of modified environment and selection under the influence of human care as wild plants cannot possibly do.” The magazine endorsed the call for “broader botany,” or the science of horticulture defined by one of their major contributors Liberty Hyde Bailey, who was the crucial figure in driving horticulture into the domain of plant science which had been monopolized by botanists.²⁰

Bailey was born in Van Buren County, Michigan, in 1858. His father operated a big apple orchard where Bailey spent his childhood, gaining wide knowledge about nature and horticulture. In the meantime, Bailey senior had a profound influence on his talented son with his “Masonic vision of spiritual unity and universal brotherhood.” When he was nineteen years old, the son went to Michigan Agricultural College where he studied botany and horticulture. After graduation, instead of returning to the family-owned orchard, he searched for a more intellectual career and went to Harvard as Asa Gray’s assistant. In 1885, Bailey returned to Michigan Agricultural College as the first professor of horticulture and landscape gardening, but three years later he was invited by Cornell to become the chair of Practical and Experimental Horticulture. It was in Ithaca, New York, that Bailey started his revolutionary reform of horticulture, but also his legendary career as an

²⁰ Editorial, “Botany in the Agriculture Colleges,” *G&F*, 19 October 1892, 493.

extremely prolific writer, a nature-study advocate, a country-life spokesman, a social reformer, and also an environmental philosopher.²¹

During his years at Cornell, Bailey was a regular contributor to *G&F*, publishing around eighty articles. Many of these papers discussed some specific topics of horticulture, such as the theoretical analysis of grafting and variation, the introduction of some new varieties of fruits and flowers, and the description of some new horticultural industries; and some of the articles were on the general development of horticulture. Bailey also promised to report the Columbian Exposition for the magazine; thus, over twenty articles he wrote were on the horticultural exhibits at the World Fair in 1893. Although compared to his long list of more than 700 papers including 60 books, the number Bailey published in *G&F* was not high, these articles were vital to the magazine's vision of horticulture.

The fundamental idea Bailey tried to convey in the magazine was to turn horticulture into a part of liberal education, training people to observe and contemplate the natural world through directly working with it. His experimental horticultural course design at Cornell was reported by *G&F* in detail, focusing on introducing scientific knowledge into horticultural practice. Later, when there were more programs of horticulture established in various schools, the magazine devoted more pages to this subject. Several horticulture professors sent their course designs to *G&F*, including W.M Munson from Maine State College, and Frank A. Waugh and V.A. Clark from the University of Vermont. They differed in specific course

²¹ Allan Carlson, *The New Agrarian Mind: The Movement toward Decentralist Thought in Twentieth Century America* (New Brunswick, N.J.: Transaction Publishers, 2000), 8.

arrangement, but all agreed with Bailey's essential point that horticultural education should incorporate scientific training.

Bailey's personal interests and contributions were too broad to define him merely as a horticulturist. At the turn of the 20th century, he served as the leader of the American country life movement and the nature study movement. The former paid close attention to elevating farmers' material and spiritual life by introducing them to scientific agriculture and horticulture, and by inspiring them to discover the beauty of nature and explore their kinship with nature. The latter brought nature into school education through celebrating Arbor Day, gardening on campus, visiting botanic gardens, summer camping, and studying botany and birds in classrooms in order to retain an intimate relationship with nature among children in an urban and industrial age.

Historian Allan Carlson argues that Bailey was the representative of the new agrarianism emerging at the turn of the 20th century, which was politically decentralized, "socially conservative and economically radical." The central question proponents tackled was to preserve rural values based on the family unit and economic democracy under the assistance of advanced technology and science in a society where farmers were becoming a minority.²² But it is also important to notice that Bailey was not only concerned with farmers' destiny in an urban society, but also nature's position in such a new social landscape. He was searching for a balanced relationship between nature and society including all its members, urban and rural.

²² Carlson, *The New Agrarian Mind*, 5.

Despite his decentralized views, he argued that Americans should not merely rely on government to mitigate the degradation of natural environment, but also use government in preserving some natural resources and scenery on a large scale, such as forest reservations and national parks. His conservative social values made him cherish rural family life, but they did not lead him to object to the progress of industry and cities. In *The Holy Earth*, the work containing his essential thinking about nature and society, Bailey did not intend to recover the traditional rural order, but he tried to construct a new relationship between man and nature, and to some extent, a new religion to interpret the earth, a good, kindly, and holy existence for all its participators, including mankind.

Thus, Bailey preached to his readers: “We shall find our rootage in the soil.” The most efficient bond between human hands and the soil was agriculture and horticulture. Bailey did not attempt to persuade everyone to go back to farming, which he thought was impossible and unnecessary. Horticulture, as a physical and mental experience with the soil, comprised profound meaning for an urban society. For some people, it was a career to make a living; for many others, it was the direct means to touch soil and nature; for Bailey and other scientists, it was a channel to understand the economy of nature; for the human species, it was one of the major ways to make the earth generate more products to satisfy the ever increasing human need. Even though Bailey advocated a kinship between man and other creatures on earth, he still believed that humans had their dominion over earth. But “dominion does not carry personal ownership,” and stewardship based on morality was the only

legitimate right and responsibility man had on earth. Horticulture under the instruction of science was the wise and rational way for people to implement their stewardship.²³

Bailey wrote these words in *The Holy Earth*, not for *G&F*, but his view of horticulture was congenial to the editors and most contributors of the magazine. No matter what their background, they agreed on the necessity of scientific knowledge in the practice of horticulture and the social and spiritual agency of horticulture in urban life. In 1889, Henry Sargent Codman in a short essay, introduced a horticultural school at Versailles which was regarded the best in its field in Europe. In an editorial discussing this essay, the editors pointed out that “the theory of the school is, that instruction in horticulture, if it is to be of any value, must be both practical and scientific.” This editorial and Codman’s essay expressed the early but also the central view about horticulture in the magazine. In an editorial entitled “Horticulture and Health” published in 1896, the editors summarized the shared views among their contributors:

It is very plain that the ampler knowledge we have of Nature's laws, and the fuller command we have of scientific truth, the better we are able to cope with the problems of practical horticulture, which means the transforming of crude and comparatively worthless material into substitutes of value for food or for administering to our love of the beautiful. A knowledge of botany, chemistry, entomology and geology can all be utilized in floriculture, in vegetable-gardening and in fruit-growing, and any one of these occupations will stimulate the ambitious practitioner to study and cultivate his habits of observation.²⁴

²³ Liberty Hyde Bailey, *The Holy Earth* (New York: Charles Scribner's Sons, 1915), 22, 16.

²⁴ Henry Sargent Codman, “The National School of Horticulture at Versailles,” *G&F*, 16 January 1889, 27; Editorial, “Schools of Horticulture,” *G&F*, 16 January 1889, 25; Editorial, “Horticulture and Health,” 21 October 1896, 431.

Advocating the scientific side of horticulture did not contradict the magazine's effort of promoting horticulture as a hobby among urban residents. On the contrary, *G&F* argued that acquiring botanic knowledge and practicing gardening were complementing each other, leading people to the same goal: a more harmonious and close relationship with nature. There were many amateurs of horticulture writing for *G&F*, including the editor Stiles who was a big fan of orchids. Many contributors thought that horticulture was a good outlet to release the stress imposed on people by urban life.²⁵ But the amateur practice was more self-absorbed, meeting mainly personal need, which could not take the place of professional horticulturists whose mass production was the only way to satisfy the incessantly swelling need of urban residents.

G&F was sensitive to the growth of horticulture as a profession. In the first issue of the magazine, Peter Henderson wrote an essay entitled "Floriculture in the United States." One of the most famous ornamental horticulturists in the nation, Henderson owned a big market-gardening business for flowers, seeds, vegetables, plants, bulbs, and garden accessories in New Jersey and New York, which claimed in its advertisement that it supplied "everything for the garden." In this essay, Henderson described the prosperity of commercial floriculture, one of the major branches of horticulture in the United States. He pointed out that at the beginning of the 19th century, there had been altogether no more than 100 professional florists in the entire nation, and currently their number exceeded 10,000. "The present rate of growth in

²⁵ Please see more discussions on the relationship between horticulture and urban society in the fifth chapter.

the business,” he wrote, “is about 25% per annum, which proves that it is keeping well abreast of our most flourishing industries.” Although Henderson had been born in Scotland in 1822 and did not come to the United States until 1843, he thought that “old world conservatism is slow to adopt improvements,” and American florists, on the contrary, were much more efficient, inventive, and inclined to employ new techniques and knowledge. In the end, Henderson confidently concluded that since the love of flowers was innate to everyone, he could “safely look forward in the expectation of an ever increasing interest and demand, steady improvement in methods of cultivation, and to new and attractive developments in form, color and fragrance.” Henderson’s prediction was not over optimistic. Along with the deepening of urbanization, the consumption of flowers, fruits, and vegetables became a marker identifying healthy and tasteful urban life.²⁶

Although, for *G&F*, the promising profit attained from horticulture was a good reason driving more people to take it up as a career, it was not the only motive and social function of horticulture. In the view of the magazine, horticulturists should not be merely commercially oriented. Their primary mission should be to enrich people’s life with more diverse species of better quality and larger quantity through cooperating with nature. Many contributors to *G&F* were working for this end, and they popularized their achievements through the pages of the magazine. One of the most significant contributors on this topic was Edward O. Orpet, who published the

²⁶ Robert F. Becker, “Henderson, Peter,” in *Pioneers of American Landscape Design*, eds. Charles A. Birnbaum and Robin Karson, (New York: McGraw-Hill, 2000), 170; Peter Henderson, “Floriculture in the United States,” *G&F*, 28 February 1888, 3.

first essay of his horticultural career in *G&F* in 1889. After then, there were around 240 articles and notes appearing in *G&F* under his name, and almost all of them contributed to the cultural department of the magazine, ranging in topic from new natural and cultivated species of flowers, fruits, and vegetables, to methods of potting, grafting, and sowing, to insecticides applied on plants. Next to William Watson, who was one of the major foreign correspondents of *G&F* from the Kew Royal Garden, Orpet contributed the largest number of articles to the magazine.²⁷

Coming to the United States from England in 1887 when he was only twenty four years old, Orpet had already been a nurseryman for almost ten years. His father was a gardener in the old Roman town of Cirencester, England, so Orpet grew up surrounded by plants. Like many horticulturists in his day, he suffered from poor academic training. After learning writing and reading in a private school, he started his career in gardening when he was only fourteen years old. But unlike many nurserymen in his day, he did not give up the cultivation of his intellectual side while he was doing manual work. Reading *Gardener's Chronicle*, the leading horticultural magazine in England, was one of the major ways linking him with the scientific development of his profession. Coming to the United States furnished new opportunities to Orpet in many ways, but one of the most important was a chance to in fill in the gaps in his knowledge of botany and horticulture. He lived in the same house with a prominent self-educated botanist, George Thurber, for three years after

²⁷ Watson wrote around 340 pieces for *G&F*, and most of them were published in the department of foreign correspondence. In these essays, Watson introduced new botanic and horticultural research and discoveries in the Kew Garden, the flower and fruit market in London, and the activities of the Kew and other botanic and horticultural organizations in England.

he arrived in New Jersey; the relationship failed to “turn him into a botanist,” but gave him “invaluable instruction in native American flora.”²⁸ In 1888, Orpet became the superintendent of a private garden owned by E.V.R. Thayer in Lancaster, Massachusetts, and he held this position until 1910. Later on, he moved to Forest Lake, Illinois, first, then to Chico, California, and finally settled down in Santa Barbara. He served as the superintendent of parks in the city for a decade, and a four acre park he established as a horticultural show place was named after him.²⁹

Orpet embodied the successful practical horticulturist of his age, trained in the conventional practical way but eager to absorb new scientific knowledge and adopt new techniques. His biographer called him a “plant missionary,” whose mission was to disseminate plants and the knowledge of them among people. It was a common view among the contributors of *G&F* that the horticulturists’ expertise ought to be applied in enhancing the general public’s acquaintance with flowers and plants. In many editorials, the magazine emphasized the florists’ responsibility as “educators” in shaping and refining the public’s choice and taste for flowers and plants. It argued that the recognition of this responsibility among horticulturists represented “horticultural progress” in the United States.³⁰

Besides their effort in “forming public taste in horticultural matters,” horticulturists should also take the responsibility for protecting various natural

²⁸ George Thurber also contributed an essay to *G&F* on poisonous primrose in 1890 in which year he died.

²⁹ Mildred Selfridge Orpet, “E. O. Orpet, Horticulturist,” *Journal of the California Horticultural Society* 13, no. 2 (April 1952): 43

³⁰ Editorial, “The Society of American Florists,” *G&F*, 22 August 1888, 301; “The Florist,” *G&F*, 29 August 1888): 313.

resources, especially in an urban landscape. For example, street trees, with their sanitary and aesthetic values, were one of the basic but relevant natural resources existing inside cities. In its pages, *G&F* depicted the merciless abuse that urban street trees had to suffer, and deplored the disastrous consequences of ignorant species selection and plantation. The editors and contributors noticed that there was a growing passion for tree planting in cities and towns, and the establishment of Arbor Day represented the peak of this passion, but the lack of professional advice might lead the passion in the wrong direction.

This was why *G&F* suspected the offer made in Boston to give shade trees to citizens who promised to plant them on the street before their properties and agree to supply their own soil and labor. This proposal sounded attractive; however, warned the editors, “if the offer is accepted by many people, the appearance of the city will be seriously injured, and the taste of the inhabitants for trees and tree planting will be checked rather than developed.” Street trees in cities were different from trees planted in people’s backyards. The former required special attention and care to fight against the “hardship of a city life”: dust, smoke, sewage, and so on. Also, “uniformity is essential in a street plantation,” but this could only be gained by wise selection and a unified way of planting. Thus, it was one thing to arouse the public passion for planting street trees, and it was another thing to plant these trees in a smart way.³¹

So tree planting on streets needed the instruction of experts who knew trees. At the beginning of its publication, the editors pointed out that there were two common

³¹Editorial, “The Responsibilities of Florists and Nurserymen,” *G&F*, 12 September 1888, 337; “Street-Trees,” *G&F*, 19 March 1890, 137; “Tree-planting in Cities,” *G&F*, 29 April 1891, 193.

mistakes in this matter: “the work is done too cheaply, and the trees are badly selected with reference to future effect.” To cure these two problems, *G&F* argued that “handsome trees will never be found in our cities until the work is placed in the hands of responsible and competent officers from the very beginning whose duty it is not only to select the trees and plant them, but to supervise all pruning.” And these officers should be “experts who know trees, who know how to plant them and how to care for them afterward.”³²

Although the magazine reached unanimity on the application of expertise in tree planting, another question was raised. What kind of expert should people consult on street tree planting? The magazine did not give a clear answer to this question. But it was related to a more complicated question: what were the sub-fields of horticulture? Conventionally, horticulture involved the whole range of cultivated plants, including not only flowers, fruits, and vegetables, but also trees for ornamental and economic uses and landscape gardening. In the prospectus printed in the first issue, the editors claimed that the magazine was devoted to “Horticulture, in all its branches, Garden Botany, Dendrology and Landscape Gardening,” but in the title, the magazine was devoted to horticulture, landscape art, and forestry. It seemed that at the outset of its publication, even this first magazine in the nation engaged in the discussion of landscape architecture and forestry, was not very clear on the relationship between them.³³ Actually, in the next ten years, one of the major efforts made by the editors

³²Editorial, “Street Trees,” *G&F*, 11 April 1888, 74; “Street Trees,” *G&F*, 27 December 1893, 532.

³³One of the nagging questions for these new professionals and their advocates was what was the most appropriate title this new profession should apply. Olmsted accepted the term “landscape architecture” reluctantly; so did Charles Eliot. Neither of them could think of a better term than this

and contributors of *G&F* was to clarify this relationship, to make landscape architecture and forestry independent professions in order to employ expertise in the management of different natural resources.

In a letter written to Olmsted, Stiles said that the writings about landscape architecture would not make “a paper that will sell,” but “really it is the only feature of the paper that can make it different from or better than any other garden paper.” Before *G&F*, there had been no magazine systematically defining and demarcating landscape architecture as a profession, or articulating landscape gardeners’ responsibility and authority in both private and public landscape designing. For years, Olmsted had been striving to make his profession be recognized by the public, grappling with indifference, ignorance, or disturbance. But Olmsted was often alone, and with his voice scattered in different publications or occasions, it was hard to carry on a lasting and concentrated discussion on this novel profession. The emergence of *G&F* created a forum for communication among these new professionals and their

one, but they were both unsatisfied with this term. In his letter to Mary C. Robbins in 1897, Eliot wrote that “I confess that ‘landscape architecture’ is a barbarous expression, and I feel it as much as Mr. Sargent does, but your [Robbins’s] own phrase ‘the art of public (and private) improvement’ is certainly long, and is not convertible into any descriptive noun like ‘landscape architect,’ so until somebody invents a better phrase, I think we shall have to stick to the term ‘landscape architect.’” Charles Eliot to Mary Caroline Robbins, 2 December, 5 December 1896, Charles Eliot Collection, Frances Loeb Library, Harvard Graduate School of Design.

But Mariana Van Rensselaer was inclined to use “landscape gardening,” for she thought that landscape architects used the same material as nature did in their work. See more details in Judith Major, “Mariana Griswold Van Rensselaer’s Landscape Gardening Manifesto in *Garden and Forest*,” *Landscape Journal* 26, no. 2 (2007): 183-200.

In *G&F*, the editors used landscape gardening more often, but sometimes they also applied landscape architecture or landscape art. Although Van Rensselaer favored the phrase “landscape gardening,” she referred to essentially the same art as the other landscape architects did. In this dissertation, I adopt the modern phrase “landscape architecture,” except for the sentences quoted.

advocates, and enabled their voices to extend farther and broader. There were indeed no more than a dozen people practicing landscape architecture as a profession in the nation, and most of them contributed to *G&F*, including Olmsted, his two sons—John C. Olmsted and Frederick L. Olmsted Jr.—Horace W. S. Cleveland, Charles Eliot, Henry S. Codman, Beatrix Jones, Samuel B. Parsons, Frank A. Waugh, Ossian C. Simonds, Warren H. Manning, Harold A. Caparn, and Wilhelm Miller.³⁴ Besides these landscape architects, there were also some enthusiastic supporters of the new profession, represented by Sylvester Baxter, Mary Caroline Robbins, Stiles, and Mariana Van Rensselaer. Except for Olmsted and Cleveland, all the others grew up in the second half of the 19th century.

Quite different from the professional horticulturists in the 19th century, many of whom were not native born and usually had humble or even rough childhoods, most of these new landscape architects came from upper-middle or wealthy families in New England or New York. Eliot was the son of Charles W. Eliot, the prestigious president of Harvard; Codman was Sargent's nephew;³⁵ Jones was born in a rich New York family, and her aunt was Edith Wharton, a famous novelist; Parsons was born in New Bedford, Massachusetts, and later his family business, one of the nation's biggest and most famous nurseries, moved to Flushing, New York; Robbins was from

³⁴ Manning wrote one essay for *G&F* on horticultural nomenclature. He was hired by the office of Olmsted in 1888, specializing in horticulture and planting design, and opened his own office in 1896. Manning was one of the first persons who advocated establishing a professional organization for landscape architects.

³⁵ Codman was one of Olmsted's most promising protégés. He became the partner of Olmsted and John C. Olmsted (Olmsted's stepson and nephew) in 1889, and was Olmsted's major assistant in his design of Chicago World Fair in 1893, but he died suddenly in January before the project was finished when he was only twenty nine years old. In 1889, he was studying horticulture in the school at Versailles. Thus, he wrote only four essays for the magazine.

an elite family in Maine; Van Rensselaer belonged to a wealthy New York City family; and Olmsted's two sons had the same social status. There were exceptions, like Simonds, Waugh, and Miller from the Midwest, and Caparn from England, whose father owned the largest nursery in the English Midland.

In general, most of these individuals received the best education that people in their generation could dream of; thus, it was another big difference from the horticulturists, many of whom were self-educated and self-trained in gardening practice. Most of the landscape architects were graduates either of Harvard or Yale. Codman received his degree from MIT, Waugh and Miller were associated with Cornell, and Caparn studied at the University of London. The three women were given a classical education by private tutors and grew up surrounded by artists and intellectuals because of their family connections. Most of them had rich international experience, and traveled in Europe frequently as part of their education when they were young. Eliot studied in Europe by himself for one and a half years; Codman was enrolled in the horticultural school at Versailles, near Paris; Beatrix traveled abroad with her mother or her aunt all the time; John C. Olmsted studied architecture in London for a year; part of Waugh's graduate study was accomplished in Europe; from seventeen to twenty two years of age Van Rensselaer was living in Dresden, Saxony, with her family, and she went back to Europe regularly; Robbins went to Europe with her father, and studied art in Italy for a year; Baxter studied intensively in Leipzig and Berlin for three years.

Their elite social status and highbrow educational background did not determine their professional choice, but to a great extent, this education not only broadened their horizon but also enabled them to catch up with the most advanced scientific, social, and artistic development; and their status provided financial security, for landscape architecture as a career in the 19th century usually cost a fortune to study and brought no profit in the beginning years. Those people from more humble circumstances, such as Manning, Waugh, and Miller, had practiced horticulture first before they became engaged in landscape architecture.

It is also worth noting that many landscape architects were brought up in Northeastern cities; thus, their vision of society and nature was primarily urban. They admired order and efficiency promoted by expertise. In the meanwhile, the Transcendental tradition of New England had a penetrating impact on these new professionals which made their aesthetic ideal essentially Romantic. More importantly, their social connections wove most of them within Olmsted Sr.'s authoritative net, converting them to this social environmental prophet's artistic and social concepts, including his firm and enduring effort of establishing landscape architecture as a profession. Peter Walker and Melanie Simo argue that Olmsted by "temperament, background, inclination" should stand in the same camp with other American Romantic artists, but "what distanced him from them... was his drive to build his profession on such solid, pragmatic foundations that America's most aggressive, powerful men of influence would have to recognize the stature and power

of landscape architects.” To fulfill this goal, the first thing they needed to do was to separate landscape architecture from horticulture.³⁶

They did not intend to cut off the connection entirely between horticulture and landscape architecture. Many prominent landscape architects in the 19th and the early 20th centuries were at first horticulturists, such as Andrew Jackson Downing, Manning, Miller, and Waugh.³⁷ The writings of both Miller and Waugh for *G&F* focused on horticultural issues, instead of landscape architecture. Olmsted was not good at horticulture, which he regarded as a serious defect of his career, so he insisted that his son, Frederick Law Olmsted Jr., should spend much time on learning horticulture. But they did want to change the subordinate position of landscape architecture to horticulture, making people recognize that the former was essentially a fine art consisting of not only practical skills and scientific knowledge but also artistic instinct and training. The subject of horticulture was a single plant, but landscape architecture dealt with everything on a specific landscape, including not only plants, but also soil, rocks, water, and artificial entities, in order to compose a harmonious living environment.

³⁶ Peter Walker and Melanie Simo, *Invisible Gardens: The Search for Modernism in the American Landscape* (Cambridge, Mass: MIT Press, 1994), 19.

³⁷ Miller was the founder of the prairie school of landscape architecture, which intended to apply the native flora of the prairie and imitate the form of prairie landscape in landscape designing.

Waugh was famous for the so called “natural” style in landscape architecture. The difference between his natural style and the “naturalistic” style advocated by Downing was the material applied in their design. Waugh addressed the use of native species to create a natural scene, while the naturalistic style imitated only the form of nature not its vegetation. But more importantly, Waugh introduced an ecological approach in landscape architecture, which paid primary attention to the association between the plants planted by the landscape architect and the natural environment around them, such as soil, moisture, and other natural species.

Throughout its publication, *G&F* strove persistently to make its readers understand the necessity of applying this complicated profession to designing the nation's landscape. Repeatedly, the editors and the contributors argued that the art of landscape architecture must aim at preserving all forms of natural beauty, and that "it is this broad and catholic art which alone is satisfying everywhere, and which is just as useful in the preservation of the Yosemite Valley or the scenery of Niagara as it is in planning a pastoral park or the grounds about a country house."³⁸

Urban parks best represented Olmsted and his adherents' professional and social ideal. As a complicated and comprehensive public work, an urban park required the hiring of a diverse group of experts, horticulturists, nurserymen, and architects. But the crucial need was landscape architects. The construction of an urban park should be directed by landscape architects, and they should be kept in their jobs for long periods of time. For ten years, *G&F* incessantly argued that it was vital to put park development and administration in the hands of the same group of people to secure the original design and achieve the ultimate goal anticipated by its designers. The magazine indicated that the formation of a park was a long and slow natural process, but politics was unstable and contained too many uncertain elements. Therefore, "a public park," wrote the editors, "in order to be well administered, should have a management of the most permanent character possible." Germany, they thought, had the best public parks, owing to the stability of the country's municipal governments. The editors pointed out that the result of this stability was a continually "harmonious

³⁸ Olmsted to Van Rensselaer, 9 April 1888, Olmsted Papers, Library of Congress; Editorial, "Art and Nature in Landscape-gardening," *G&F*, 19 May 1897, 192.

administration of public works by competent and experienced men that assures the most economical and satisfactory results.”³⁹

But such a political system was hardly practicable in the United States; thus, the editors had to find another way to assure the permanency of park administration. Their suggestion was to establish boards of trustees, composed of experts in landscape architecture, who were independent from the city government but still operated as “public institutions sustained by public support.” They observed that there was a tendency to have this sort of board to manage museums and libraries, so public parks could be administrated in the same way. The editors wrote that public parks “form an institution by themselves, sanitary, educational and esthetic in nature, and it is equally important that they should be kept free from the complications and uncertainties of local politics.”⁴⁰

Regarding the issue of the proposed building of a Harlem speedway, *G&F* reiterated the professional identity and the significance of landscape architects in city construction. The plan for this speedway surfaced after the proposal of building a speedway in Central Park for horse racing was turned down by public opinion.⁴¹ The horse-racing supporters suggested building another speedway along the west bank of the Harlem River in Manhattan. This proposal was approved, but soon the magazine found out the decision had been made by the old New York park commission which had a city engineer plan the Harlem River speedway, instead of consulting with its

³⁹ Editorial, “The Administration of Public Parks,” *G&F*, 6 February 1889, 61-2.

⁴⁰ Ibid.

⁴¹ Stiles’s editorials in *G&F* played the crucial role in fighting against the proposed speedway in Central Park, for he believed it would destroy the entire landscape designed by Olmsted and Vaux. See more discussion on this issue in the second chapter.

landscape architect, Calvert Vaux, Olmsted's old partner and one of the best landscape architects in the country.⁴² The magazine argued that a successful landscape architect was not only a person with rich scientific knowledge of plants, soil, and architecture, but also an artist with an alert sense for finding and building beauty. Most of all, such a professional gained aesthetic and practical acquaintance with nature from his training and experience, and learned how to "make any effort for harmonizing his work with the landscape." But an engineer, who had the knowledge and skill to construct a road to connect two points, was ignorant of nature and natural beauty. He gained his professional pride by making his work "obtrusively distinct from nature, since in his view, and this is in a manner a true view, it has a beauty of its own which should be displayed. It is his business to make a convenient road and build it as economically as possible." By failing to do this, the editors lamented, "its money is misspent; its opportunities are squandered; its natural beauty is obliterated, and with it vanishes an attractiveness and charm which money cannot restore."⁴³

The editors argued that the paramount purpose of this particular speedway on the picturesque river bank was not to facilitate traffic, but to "enable the greatest number of people to enjoy the beauties of the scenery with the greatest comfort." Like other public grounds, park roads also needed artistic treatment, and it was "an outrage

⁴² Vaux's name also appeared in the list of those who had promised contributions to the magazine. But he did not write a word to *G&F*, for he might have been bothered by his financial and professional predicament. Vaux thought that Stiles was the one who understood and supported him the most, especially in the issue of the Harlem Speedway. His body was found in the water of Bay Seventeenth in November 1895. It might have been an accident due to the heavy fog. His total property was valued at only \$2500. In *FLO*, Roper has detailed discussion on the relationship between Vaux and Olmsted, and Olmsted's supportive attitude in the Harlem Speedway issue.

⁴³ Editorial, "City Engineers and Public Parks," *G&F*, 6 March 1895, 91; "The Harlem River Speedway," *G&F*, 8 August 1894, 311.

against civilization” to entrust the planning of them to one who knew nothing about the landscape. *G&F* was not only arguing for Vaux’s competence in designing park roads, but also defending the professional dignity of landscape architecture in general. Their fight lasted a year and finally achieved success: the old park committee was removed by the new mayor, and a new board returned the supervision of the speedway construction to the hand of Vaux.⁴⁴

The expertise of landscape architects, however, should not be confined to urban parks, according *G&F*. It must be applied to reform the entire city landscape. *G&F*, as the most potent advocate for landscape architects, strongly voiced the professional ambition of this group of experts. As the first and one of the most celebrated projects in American urban park history, the Boston metropolitan park system had many merits, but its unreserved confidence in expertise was its most significant attribute. In *G&F*, the editors explained:

An individual park ought to be an organized work of art. A system of parks requires still more study if it is wisely adapted to the varied wants of all classes and all ages, with facilities for every form of outdoor recreation. Just here the example set by Boston should be a model for every city. Professional advisers were appointed before an acre was bought. They were consulted not only in a general way as to the selection of park sites, but, after making a complete study of the whole question, they selected the sites and worked out their boundary lines.

The magazine believed that, only when the project was under control of experts who were removed from local political and economic influence, could such a magnificent system be brought into existence.⁴⁵

⁴⁴Editorial, “City Engineers and Public Parks,” *G&F*, 6 March 1895, 91-2.

⁴⁵Editorial, “Park Lands and Their Boundaries,” *G&F*, 21 October 1896, 421.

G&F chose Mariana Van Rensselaer's article on landscape gardening to inspire the whole discussion and study of this fledgling profession. She had been born in New York in 1851, and married a mining engineer in 1873. Her husband Schuyler Van Rensselaer died in 1884, and after that, Van Rensselaer undertook a serious career as an art critic, although she had published poems and some articles on art in the 1870s. Her earlier articles paid special attention to architecture, which led her to the writing of a biography of H.H. Richardson, a renowned American architect who died in 1886. This project brought her into close contact with Olmsted, who had had pleasant cooperation with Richardson.

Never feeling confident in his own writing and becoming more and more occupied by increasing business requests, Olmsted was eager to enlist more talented and enthusiastic spokesmen for his profession. In a letter to Eliot written in 1886, the senior landscape architect urged his protégé: "You ought to make it a point of your scheme to write for the public, a little at a time, if you please, but methodically, systematically. It is a part of your professional duty to do so." Olmsted had been concerned with the shortage of skillful writers on landscape architecture. He told Eliot that he would be better than other people writing on this subject, and tried to convince him by saying that "if you consider who and what they are who now write for the public on—or rather around—the subject, you will not think it flattery, if I say that you can easily give the public what the public most needs much better than any other man now writing." Thus, Van Rensselaer's timing was excellent for both Olmsted and her. The art critic was inclined to shift her focus, and the landscape

architect was in need of such an author mastering language and knowing about art and its history.⁴⁶

When *G&F* was being developed, Van Rensselaer was named in a short list given to Stiles by Olmsted of people who were likely to write on landscape architecture. Before the first issue came out, Stiles wrote to Olmsted and mentioned that “Eliot has sent me some valuable material—quotations from early landscape writers—German & English—with a catalogue of reference. There’s stuff in the young man. Mrs. Van Rensselaer is also very helpful. We are going to be able, I begin to feel to make a paper distinctly different & better than any yet seen.” Van Rensselaer’s help consisted of her well-organized and beautifully written seven-part essay entitled “Landscape Gardening, A Definition.”⁴⁷

In this series of essays, Van Rensselaer attempted to persuade her readers that landscape architecture was a fine art, ranking along with the other three more commonly recognized arts of design, painting, sculpture, and architecture, and was “the art whose purpose it is to create beautiful compositions upon the surface of the

⁴⁶ Olmsted to Charles Eliot, 28 October 1886, Olmsted Papers, Library of Congress. Olmsted added that “I ought to have excepted Stiles, but I suppose that I did not feel that regular hack newspaper work should count. Stiles does well but he has not half your advantages.”

Cynthia D. Kinnard suggests that Van Rensselaer had known Olmsted through Henry Adams or Richardson in 1882. Her father made acquaintance with Olmsted during the Civil War, but Kinnard doubts that Van Rensselaer had had any personal contact with Olmsted that early. They had had no regular corresponding until Richardson’s death. Cynthia D. Kinnard, “The Life and Works of Mariana Griswold Van Rensselaer, American Art Critic,” (Ph.D. diss., The Johns Hopkins Univ., 1977). Sargent and Olmsted collaborated on having Van Rensselaer’s work on Richardson published, but it is hard to speculate when Sargent and Van Rensselaer got to know each other.

⁴⁷ Stiles to Olmsted, 7 January 1888, Olmsted Papers, Library of Congress.

Van Rensselaer later compiled this series of essays with some other essays written for *G&F* into *Art Out-of-Doors: Hints on Good Taste in Gardening*, published by Charles Scribner’s Sons in 1893. This book has been regarded one of the best on landscape architecture theory, and was widely adopted in professional courses of landscape architecture.

ground.” As a compositional art, it should be assisted by specific knowledge and technology, combining the artistic imagination in harmony with the natural scenery. For landscape architects, general beauty was higher than individual beauty. The beauty shown by nature was always scattered and disorganized, but unity, wholeness, and compositional harmony were the ultimate goal of landscape architecture. According to Van Rensselaer, landscape architects possessed “an appreciation of organized beauty—of the beauty of contrasting yet harmonious lines and colors and masses of light and shade, of intelligent design, of details subordinated to a coherent general effect. Yet it is only such an appreciation as this which means a real taste for nature's beauty and which can make the surroundings of our homes really beautiful.”⁴⁸

Satisfied with Van Rensselaer's general discussion, and especially with her effort to promote the public's awareness of this new profession, Olmsted wrote in a letter to her: “I really think that *Garden and Forest*, though, will hereafter, be thought to have marked the dawn of a new day. And it gives me some satisfaction to think that though I seem to myself to have been all my life swimming against the tide I shall not sink before having seen it turn.” In the next few years, Van Rensselaer's enthusiasm for this new art did not fade. After this series of essays, she published altogether seventy-one articles in *G&F* in addition to some unsigned editorials, including a series of essays comprising twenty-one sections, entitled “Art of Gardening: A Historical

⁴⁸Mariana Van Rensselaer, “Landscape Gardening: A Definition,” *G&F*, 28 February 1888, 2; “Landscape Gardening, A Definition,” *G&F*, 4 April 1888, 64.

Sketch.”⁴⁹ In the editorial introduction to this new series, the editors declared that this series was the first work on the history of landscape gardening written in English. Van Rensselaer went far back to Ancient Egypt, tracing the historical development of landscape architecture, and further convincing the readers that it had been practiced as fine art all over the world and had functionally preserved and enhanced beauty and harmony in diverse cultural and natural landscapes.

Van Rensselaer was not the only female voice heard on the issue of landscape architecture in *G&F*. In 1891, Mary Caroline Robbins’s name appeared in a series of essays entitled “How We Renewed an Old Place,” which was comprised of twenty parts and was compiled into a book under the title of “Rescue of an Old Place,” published in 1892. At the beginning of this series, she stated that her purpose of writing it was “partly to acknowledge a debt to GARDEN AND FOREST for many practical suggestions which have a help in bringing harmony and beauty out of neglect and desolation, and at the same time to show its readers the pleasure and interest of endeavoring to create, under its inspiration, a garden and forest of one’s own.” She described how she and her husband revitalized an abandoned estate in Hingham, Massachusetts, fifteen miles south of Boston, through gardening and renovating. Robbins offered a few horticultural tips and some landscape gardening hints, but this series was primarily a work fused with Transcendentalist passion for nature and society. In these essays, it is easy to find passages like: “Hope and faith are

⁴⁹ Judith Major indicates that Van Rensselaer should get credit for writing some unsigned editorials for the magazine, for she incorporated some of them into her book *Art Out-of-Doors*, and some other may be linked to her experience, such as the comparison between landscape architects and painter. Major, “Mariana Griswold Van Rensselaer’s Landscape Gardening Manifesto in Garden and Forest.”

qualities that find splendid exercise in tree-planting, and no pursuit can be more unselfish;... It is by this spirit that we become one with Nature, sharing humbly in her patience, in her vast unending plans, in her bountiful provision for the future.”⁵⁰

Robbins was born to a typical New England elite family in Calais, Maine, 1841, and was brought up on the cultural nutrition of New England Transcendentalist tradition. When she was twenty, she went to Europe with her father who was then the United States minister to the Netherlands. Later she studied water-color with R. Swain Gifford in New York, and then art in Italy from 1874 to 1875. Before she adopted a hobby in gardening, she translated several literary and biographical works from French to English. After her series of essays was published in *G&F*, she turned into one of the most enthusiastic advocates of urban parks and landscape architecture. She published around sixty articles in *G&F*.⁵¹ Besides the twenty-part essay on the renovation of her estate, the major work was on the introduction of New England and, later, American parks. In *G&F*, she wrote fifteen essays on this topic, and in addition to this she described the park systems in Minneapolis and St. Paul undertaken by Horace Cleveland.

Van Rensselaer and Robbins came from similar social and education backgrounds. Their training in art and literature was much more refined than that of the majority of the society, both women and men. But their differences were also conspicuous. Robbins’s works lacked the systematic structure and systematic understanding of art

⁵⁰ Mary C. Robbins, “How We Renewed an Old Place, I,” *G&F*, 1 April 1891, 146; “How We Renewed an Old Place, III,” *G&F*, 15 April 1891, 170.

⁵¹ In some article, there were only the initials M.C.R. Presumably, they had been written by Robbins, for the style of these articles was identical to those with her full name.

that characterized Van Rensselaer's writing. But more importantly, Van Rensselaer's discussion of landscape architecture focused on the profession, somehow transcending the boundary of nations, while Robbins applied gardening as a channel to express her patriotic pride and passion. In another words, Van Rensselaer's articles in *G&F* were mainly about art and nature, but Robbins's works talked more about society and gardening. In fact, Robbins did not have a clear sense about what landscape architecture was as an art or a profession, but she was keen on its social and educational function. From December 1896 to February 1897, she published three articles in a row in *The Atlantic Monthly* entitled "The Art of Public Improvement," "Park Making as a National Art," and "Village Improvement Societies" respectively. The central idea in these essays was advocating the construction of a park system connecting cities, villages, wild mountains and forests which would represent the democratic spirit of the United States. Van Rensselaer was not indifferent to the social side of the profession; on the contrary, she also hailed the social benefits acquired from landscape architecture and was eager to cultivate public artistic taste, but she placed more emphasis on clarifying its identity as a fine art in her *G&F* articles.

Their difference lay in their gender views too. Although pursuing a radically different career from most women at the time, Van Rensselaer was not a typical woman's-rights activist. After her only son's early death in 1894, she became much more involved in public service, especially in settlement work and later in public education reforms, but consequently she spent much less time on writing. She became

a member of the Women's Association for Improving the Public Schools, and then the president of the association from 1898 to 1906 (which had been renamed the Public Education Association in 1895). Her service in uplifting the public educational system was akin to her intention of cultivating public taste and her belief in expertise. She advocated professionals, not politicians, in the management of public schools. But her vision of women's social position and occupation was rather conservative. Her biographer Cynthia Kinnard argues that Van Rensselaer believed that "education for women was important to fit them to be the best wife, mother, and housekeeper." In an essay published in *Forum* in 1892, Van Rensselaer wrote that women "may help the world along in a way that is parallel, not identical, with his [man's]." The division between men and women should not be blurred, because women's work was equally importantly but distinct from men's.⁵²

Kinnard indicates that Van Rensselaer did not reject the idea that some women, when they did not have feminine work to do, should be cultivated into an "intellectual leisure class. But their working sphere should be confined to home, libraries, or college labs, "out of contact with the active, money-making class of men," so that they would not be "masculinized."⁵³ It was the fear of losing femininity that motivated her to become a member of the anti-women suffrage campaign at the end of the 19th century. Women suffrage would lead them to a government job which was naturally unfit for them. Van Rensselaer argued that woman was "the world's

⁵² Kinnard, 280; Van Rensselaer, "The Waste of Women's Intelligence," *Forum* 13, no. 25 (July 1892): 620.

⁵³ Kinnard, 280-1.

educator,” while man was the “executive.” Instead of claiming new duties, women should learn how to implement their natural responsibility in a better sense.⁵⁴

In her articles published in *G&F*, however, Van Rensselaer conveyed almost no hints suggesting her own sex or her view of gender, except for her name. She used “She” to refer to nature, and “He” for mankind, but it was a common usage applied by people in the 19th century. But her general view of gender determined her choice to sit in her garden, writing on this art while enjoying her tea, instead of surveying the field, hoeing the earth, and counting the expense of a project.

But there were some discussions related to the issue of gender in *G&F*. In an editorial published in 1892, the editors failed to hide their gender bias. In the discussion of the indoor and outdoor taste, the editorial criticized Americans’ over-attention to indoor decoration and ignorance or “poor taste” in their outdoor gardening. It said that since American men were “too much occupied to give much attention to their grounds,” women or the hired gardeners were usually responsible for outdoor gardening. Women were always talented in making “a flower garden,” but they were “seldom great on an estate where prettiness, variety, daintiness, delicacy are required...” The reason was that “landscape-gardening on a large scale is, after all, a masculine art, and requires a certain manly vigor of treatment, an unhesitating despotism, that the gentler sex deprecate as cruel and unnecessary.” In so stating, however, the editors did not intend to discourage women’s practice of landscaping. They argued that “there is no reason why a woman of taste should not

⁵⁴ Van Rensselaer, “Thoughts on Women Suffrage, IV,” *World*, 19 May 1894 (New York). 4, quoting Kinnard, 283.

master the science of outdoor beauty, and conform her arrangements to its rules rather than to her own caprice.” The editorial went on to say: “We would urge upon women to address themselves to the acquirement of solid knowledge on this subject, as the best foundation for taste in the arrangement of their grounds. It is a healthful, beautiful and useful pursuit.... All this would be of value to feminine development, both physical and mental...”⁵⁵

Robbins responded to this editorial immediately, expressing a strong gender identity and showing zealous effort to find a spot for women in landscape architecture. Her letter “Some Questions about Taste” was published two weeks after the editorial. In it, she asked: “Are we women to be confined to the petty and the pretty forever, or may we not aspire to the loftier walks of landscape-gardening, even as some of us venture to try issue with senior wranglers in the higher mathematics?” Her own answer to this question was positive, but education from the beginning level of landscape architecture was necessary. “The editor of this paper,” Robbins wrote, “is just the person to give us a few elementary lessons in the profession we are so eager to practice, and apparently in his eyes so little qualified to adorn.” Three weeks later, in an editorial answering Robbins’s letter, the editors wrote that they had received some complaint “of the rather ungallant statement that hitherto women had not shown themselves great in creating broad landscape-effects,” so they thought it was necessary to lay down some fundamental principles in landscape architecture for people who intended to practice it. They avoided making any changes to their

⁵⁵ Editorial, “Taste Indoors and Out,” *G&F*, 10 August 1892, 273, 274.

previous gender-prejudiced definition of the profession, although they maintained the belief expressed in the last editorial that, by learning and obeying the laws of science, women's problem of lacking "an unhesitating despotism" would be solved, and "studious women might master them thoroughly."⁵⁶

This gender controversy did not go further at the time, but Sargent soon found another opportunity to demonstrate the argument made in *G&F*. In 1893, a year after these editorials were published, Beatrix Jones was introduced to Sargent through his wife. Sargent's persistent but undoubtedly manly encouragement and instruction were the most powerful force which shaped a shy, rich, pretty, but also talented twenty-year-old girl into "the Dame of landscape architecture." Jones's first published work appeared in *G&F* in 1893, and she contributed three papers to the magazine. Her career proved at least one thing—that women could be genius landscape architects.⁵⁷

The difference between the editors' and contributors' gender vision, however, did not prevent the magazine from concurring on the social function of park construction and the necessity of professional management. Their common goal was to forge this new profession. Eliot, one of the most promising and talented landscape architects in the late 19th century, was significant in this process. He was Olmsted's loyal pupil, but was even more ambitious and firm in promoting the profession of landscape architecture. Unlike Olmsted, Eliot did not take any detour on the way to his beloved career. When he was a teenage boy, his love of nature and talent in designing were

⁵⁶ Robbins, "Correspondence: Some Questions about Taste," *G&F*, 24 August 1892, 405; Editorial, "Taste Indoors and Out," *G&F*, 14 September 1892, 433.

⁵⁷ Jones refused to use "landscape architecture," and stuck to "landscape gardening."

already unquestionable. Graduated from Harvard with a bachelor of arts in 1882, he enrolled at the Bussey Institution at Harvard, since there was no program in landscape architecture there or anywhere else in the nation. There, he took courses in horticulture, agriculture, topological surveying, and other botanic and entomological-related fields. In 1883, his study at Bussey Institution was interrupted, for he accepted an internship to work with Olmsted who had the work of creating the Boston Park System in his hand. So Eliot became familiar with the system and Olmsted's idea when he was an intern. He later went back to Bussey to finish his study and traveled in Europe from the fall of 1885 to the end of 1886. After he came back to Boston, instead of joining with Olmsted and his son, Eliot opened his own landscape architecture office, but he maintained a close relationship with Olmsted and was recruited by the latter to use his pen to propagandize his profession.

In *G&F*, Eliot published twenty articles that had broad content involving various aspects of the new profession, such as landscape preservation, history of landscape architecture in the United States, literature of landscape architecture, landscape preservation, horticulture, urban parks, and regional planning. In various essays, Eliot articulated his intention of acquiring public recognition of landscape architecture. In 1889, in an essay entitled "The Landscape Gardener," Eliot listed a long series of questions on how to work on the surface of land to make the scenery reach a state of harmony with nature. The answer to all those questions was simply this: "Only

special study and long observation will fit a man to solve successfully these problems of landscape gardening.”⁵⁸

Although he did not write very much for the magazine, some of Eliot’s most important literary works appeared in *G&F*. Like Van Rensselaer, Eliot was also fascinated with the history of landscape architecture. When Van Rensselaer surveyed world landscape history in *G&F*, from February 1889 to May 1890, Eliot published a six-section series of essays entitled “Some Old American Country Seats,” which was one of the earliest efforts studying the history of American landscape architecture. He was passionate for both natural and cultural landscapes. In an essay “The Coast of Maine,” after picturing the rich and spectacular natural scenery of the Maine coast, Eliot wrote: “The human story of the coast of Maine is almost as picturesque and varied as its scenery.” With this passion, Eliot initiated a movement to preserve unique natural and historical landscapes inside or on the border of cities, which constituted a significant part of the Boston Metropolitan Park movement.⁵⁹ In a letter under the title of “The Waverly Oaks” published in *G&F* in March 1890, Eliot advocated that all the lovers of nature in Boston “should now rally to preserve for themselves and all the people as many as possible of these scenes of natural beauty which, by great good fortune, still exist near their doors.” To save the woods next to Boston, Eliot called for “an incorporated association, composed of citizens of all Boston towns, and empowered by the State to hold small and well-distributed parcels

⁵⁸ Charles Eliot, “The Landscape Gardeners,” *G&F*, 13 February 1889, 74.

⁵⁹ The Boston Metropolitan Park system included the Boston metropolitan area. It was constructed based on the Boston Park system designed by Olmsted which was located inside Boston city area.

of land free of taxes,... for the use and enjoyment of the public.” This call pushed forward the establishment of the Boston Metropolitan Park Commission in 1893, and Eliot became the leading figure of the commission. In the same year, he accepted an invitation from Olmsted to become a partner of Olmsted’s firm.⁶⁰

Eliot did not write on Boston parks for *G&F*, however. Other than some editorials, all the essays on the Boston Metropolitan Park System were written by Sylvester Baxter, a Boston journalist. He wrote sixteen essays for *G&F*. Baxter was born on Cape Cod, Massachusetts in 1851, and his father was a sea captain. In 1868, after finishing elementary and secondary education in local schools, Baxter visited New York City and Central Park. He was immediately captivated by the scene, and later wrote that he was “lost in admiration for Mr. Olmsted’s masterly creation.” In the same year, Baxter went to Boston, hoping to study architecture at the newly established Massachusetts Institute of Technology, but he was unable to do so for financial reasons. After dabbling in various fields for three years, Baxter decided to undertake journalism as his life career and served on the staff of the *Boston Daily Advertiser* from 1871 to 1875. His reporting on the reconstruction of the burned parts of the city after the Great Fire of Boston in 1872 made him become interested in city planning.⁶¹

In 1875, Baxter was sent to Europe as the newspaper’s foreign correspondent, and he studied at the universities of Leipzig and Berlin where he found a model for

⁶⁰ Charles Eliot, “The Coast of Maine,” *G&F*, 19 February 1890, 86; “Correspondence: The Waverly Oaks,” *G&F*, 5 March 1890, 117, 118.

⁶¹ Cynthia Zaitzevsky, “Baxter, Sylvester,” in *Pioneers of American Landscape Design*.

American city planning. Three decades later, in his essay entitled “The German Way of Making Better Cities,” Baxter wrote:

In no other country has the art of city planning been carried to so high a degree as in Germany today. This is due to several important factors. Among them are the extraordinary industrial progress in the past quarter century, the highly organized character of German institutions, the thoroughness with which the Germans attack their problems, and the strongly idealistic quality of the national temperament. The unification of Germany in 1871 made possible the development of large plans and vast enterprises, political, economic, and industrial.

These words revealed the essential social vision of Baxter, his favorable attitude toward centralized and organized institutions, and his admiration for industrial and scientific advances.⁶²

After he came back to the United States, Baxter’s journalist career was even more colorful than before. After 1879, he served on the staff of the *Boston Herald* until 1905, and also edited and published *Outing Magazine*. Baxter had inexhaustible energy and curiosity to dig into new interests. A long list of his publications covered a stunningly wide range of subjects, from landscape architecture to city planning, from anthropology to archaeology, from German cities to Japanese poetry, from Utopian socialism to Indian life, from bicycles to trains and trolleys. In *G&F*, he even wrote on the orange fruit worm and a delicious tuber called “apios tuberosa.” In the 1880s, he went deep into the American Southwest, not as a hasty and casual tourist but as an insightful and considerate observer and reporter, investigating and writing about the untamed Southwestern landscape, Zuni Indian lifestyle, and the archaeological and

⁶² Sylvester Baxter, “The German Way of Making Better Cities,” *Atlantic Monthly*, 104 (July 1909): 72.

anthropological discoveries of his friend Frank H. Cushing and the Hemenway Expedition directed by Cushing.⁶³

In 1888, right after the publication of *Looking Backward*, Baxter became one of author Edward Bellamy's most famous and loyal adherents. He joined with some other Bellamy followers to form the "Boston Bellamy Club" in 1888, and three months later they organized the "Boston Nationalist Club." In 1915, he wrote an introduction to the memorial edition of *Looking Backward*. Although he favored government control as much as Bellamy and admired science even more strongly than his hero, he did not attempt to construct a characterless, standardized urban landscape. The expansion of the metropolis he called for should not squeeze nature out of human sight and contact. In an essay published in *G&F* in 1889, Baxter asked for the preservation of the Lynn public forest, which was later incorporated into the Boston Metropolitan system. Baxter indicated that what made such a piece of wilderness particularly precious and important was that it was located with "the densely populated and bustling city close at hand." Such a place should be held by government for public use and entertainment, and the designers should try to exclude artificial things from the wild scene except for what was necessary for public access, such as roads and walks. At the end of the essay, Baxter concluded: "Its value to the neighboring New England metropolis can hardly be overestimated. Lynn is already,

⁶³ Curtis M. Hinsley and David R. Wilcox, eds., *The Southwest in the American Imagination: The Writings of Sylvester Baxter, 1881-1889* (Tucson: University of Arizona Press, 1996).

geographically, a portion of Boston, and will be knit closer together with the central city as years go on.”⁶⁴

The Boston Metropolitan Park System—its metropolitan scale, its democratic spirit, its natural character, and its professional management—to a great extent, accomplished Baxter’s social and natural imagination. In an essay written on the park system for *G&F* when the project was first proposed in 1892, Baxter stated the mission of the system: “What is needed is to connect the various scattered public holdings, make them convenient of access, secure certain important features that still remain private property, like the lovely cascades in the easterly margin, and bring all under a uniform system of administration. This can best be done under the proposed metropolitan park administration.” This park administration was not manipulated by politicians, but guided by real experts like Eliot. From 1892 to 1893, Baxter served as secretary of the park system’s preliminary commission, while Eliot was the landscape architect. Built on the foundation of the Boston park system designed by Olmsted in the 1880s, the geographical and geo-cultural scope of the metropolitan system was much broader, and the landscape it was working on was more diverse. Besides urban parks, parkways, and public gardens—the traditional elements making up a park system—the Boston Metropolitan Park System also incorporated some wilder natural landscape and historical spots. It was a park system not concentrated in a single city, but spanning several cities and regions. Thus, its management crossed political boundaries, and could only be implemented by a commission of experts. The

⁶⁴ Sylvester Baxter, “Correspondence: The Lynn Public Forest,” *G&F*, 30 October 1889, 527.

metropolitan park system represented the professional ambitions of Eliot, which followed what Olmsted had conceived but carried it even further.⁶⁵

For Eliot and Baxter, designing alone or, more accurately speaking, simply designing the outward appearance, could not fulfill their ambition, and beauty was not the only goal a landscape architect was pursuing. In an essay published in *G&F* in 1896 under the title of “The Necessity of Planning,” Eliot pointed out that landscape architects and architects were often “deceived with ornament,” regarding beauty as the aim of their professions. He argued that “in all the arts which serve the use, convenience or comfort of man, from gardening and building down to the designing of the humblest utensil which it is desired to make beautiful, utility and fitness for intended purpose must be first considered,” and this was the “law.” He indicated that “‘a plan’ is a skillful combination of convenience with effectiveness of arrangement.” A landscape architect should be strenuous “in demanding studied planning and adaptation to environment and purpose in the laying out of whatever work may need to be done to make the wildest place of private or public resort accessible and enjoyable,” or in the construction of “formal gardens, rectilinear avenues and courts of honor.”⁶⁶

Eliot’s idea of emphasizing human need in landscape architecture was not radically different from the combination of utility and beauty advocated by Downing and Olmsted, but Eliot’s stress on planning enriched the content of the new profession. In his letter to Mary C. Robbins, Eliot criticized the latter’s “unfortunate

⁶⁵ Baxter, “The Boston Metropolitan Park Movement,” *G&F*, 5 10 February 1892, 62.

⁶⁶ Eliot, “The Necessity of Planning,” *G&F*, 26 August 1896, 342.

identification of ‘landscape architecture’ with ‘landscape gardening;” and argued that “‘landscape architecture’ includes and covers landscape engineering, landscape gardening and landscape forestry,” which “means the designing of all things and arrangements necessary or desirable for the use and convenience of human beings occupying the surface of the earth.” In a subsequent letter to Robbins, he further stated:

the fundamental arrangement for effectiveness, as well as for use and convenience, of a town, a factory yard, a ‘boulevard,’ or a series of ‘boulevards’ would all be works of landscape architecture, and not works of landscape gardening. Landscape gardening means such nice arranging of lawns, trees, shrubberies, water and so on as Mr. Sargent may practice on his private place, or elsewhere, but,... it is not a broad enough term to indicate the scope of the profession which Mr. Olmsted and some of the rest of us have been trying to establish.⁶⁷

He believed that the material of landscape architects included not only natural entities but also artificial objects. The final product of a landscape architect was also the combination of these two spheres. Only when they were composed in harmony, could the landscape realize its highest utilitarian and aesthetic values, and could the social mission of a landscape architect be accomplished.⁶⁸

While landscape architects were seeking their professional identity in reforming the nation’s landscape, especially the urban landscape, for the sake of beauty, health, and convenience, another profession devoted to the efficient use of the nation’s forests was also taking shape. In the process of forming this new profession, forestry,

⁶⁷ Eliot to Robbins, 2, 5 December 1896, Charles Eliot Papers, Frances Loeb Library, Harvard Graduate School of Design.

⁶⁸ Eliot’s untimely death in 1897 was a major impetus for his father, the president of Harvard, to establish the first independent program in landscape architecture at Harvard in 1900, and Olmsted Jr. was invited to teach. From this program, the profession of regional planning was derived.

G&F played as crucial a role as it did in landscape architecture. As the magazine claimed, it was “the only journal published in the United States which discusses comprehensively questions relating to our forests as they affect the welfare of the individual and of the nation.”⁶⁹ Gifford Pinchot, although having a bellyful of complaints about Sargent, still admitted that “I think his [Sargent’s] greatest service to Forestry—but one—was made through *Garden and Forest*,... which distributed more information about American forests and forest trees than all other periodicals combined.”⁷⁰

In the later 19th century, there were even fewer foresters in the nation than the number of landscape architects. Strictly speaking, there were only two strictly trained professional foresters, Bernhard E. Fernow and Carl A. Schenck, and both of them were Germans. Pinchot, the first American who studied forestry as a major endeavor and the most zealous and powerful force in shaping the new profession, could not wait to come back to the United States after a year’s study at the French National Forestry School in Nancy, so his professional training was far from being complete.

Forestry and forester were not new terms in English, but most Americans in the late 19th century had neither heard of them nor considered forestry as a profession. When Fernow’s fiancée, Olivia announced her engagement to a forester in 1876, her friends asked: “What is a forester? A Robin Hood who takes from the rich to give to the poor?” Soon Fernow found out that the Robin Hood idea was not only young

⁶⁹ “*Garden and Forest* for 1891,” *G&F*, April 1891, vi.

⁷⁰ Pinchot did not forget to satirize Sargent in the following sentence: “It throws an interesting sidelight on Sargent that the name of its editor, William A. Stiles, who had far more to do with its usefulness than Sargent himself, appeared nowhere in the publication.” Gifford Pinchot, *Breaking New Ground* (New York: Harcourt, Brace, 1947), 91.

girls' romantic imagination but a prevalent concept among Americans. Even people with high education felt unfamiliar with the term, and many of them confused forestry with tree planting or arboriculture. Most of the early advocates of forest preservation in the United States were botanists, horticulturists, geologists, or other intellectuals with interest in nature. But in the last decade of the 19th century, forestry appeared frequently in the headlines of the leading newspapers and magazines, and at the end of the century, three schools of forestry were established by Fernow, Schenck, and Pinchot's family respectively. From ignorance to awareness of this new profession, *G&F* was one of the most influential public presses forcing the transition.⁷¹

Forest conservation had not been a completely novel topic among American intellectuals. As indicated in the first chapter, the salience and urgency of this issue already stirred people's attention. But early discussion of forest conservation focused on the exhaustibility of American forests, the indispensability of forests in the progress of civilization, and the necessity of forest management. Forestry did not occupy a central position in this discussion. The early advocates of forest conservation, including Marsh, Emerson, and Sargent, emphasized protecting forests by government legislation to cease clear cutting, fire, and over-grazing, rather than stimulating the reproduction of forests through scientific management. The advocates were aware of the tradition of European forest management, but they paid more attention to the government interference applied in Europe. Before *G&F*, there had

⁷¹ Andrew Denny Rodgers, *Bernhard Eduard Fernow: A Story of North American Forestry* (Princeton: Princeton Univ. Press, 1951), 17.

been little systematic and detailed introduction of forestry as a practical scientific method in the United States.

Sargent's own travel in Europe in 1887 might have inspired him to devote more pages in the coming magazine to discussing forestry, for he visited several preeminent foresters in Europe during this trip. In his letter to Pinchot in 1890 on the development of forestry, Sargent predicted that sooner or later "we shall have in this country a practical system of forest control," but it was "another matter" whether Pinchot or he could see the coming of this day. At present, Sargent wrote, "all we can do is to accumulate information and fit ourselves as far as possible for useful work."⁷² This goal, compared to Pinchot's ambition, might have been too modest, but it guided the work of *G&F* in general. The information accumulating meant two major themes in *G&F*: one was to actively introduce the concept and practice of forestry from European countries; and the other one was to study the natural and cultural landscape related to forests in the United States. And both themes paved the way for the establishment of forestry as a profession. But for the professional foresters, especially for Pinchot, they were far from enough. What Pinchot wrote in *G&F* was to demarcate the boundary of forestry in order to make it gain its own authority over the nation's forests. He and Sargent concurred on the application of expertise in managing forests, but they differed in the questions asked, such as when this new profession could be established in the United States, how to locate these experts in the political landscape, and which aspects their expertise should focus on.

⁷² Sargent to Pinchot, 1 March 1890, Pinchot's Papers, Library of Congress.

The three professional foresters writing for *G&F* came from dramatically different backgrounds, and one of the fundamental distinctions was their national identities. Although Pinchot's family had been forced to come to the New World from France in 1816, since his father's generation their family tree had become rooted in American soil, and Pinchot proudly and firmly held his identity as an American. For him, the question whether forestry could gain the recognition of the public and government as the best scientific and most efficient way to manage the nation's vast forest domain equaled the question whether the United States could rank among the most civilized nations in the world. Both Fernow and Schenck, however, came to the United States from Germany in their adulthood. Mentally, socially, and more or less linguistically, it was hard for them to cultivate as much patriotic feeling for the United States as Pinchot, and consequently they did not possess such missionary enthusiasm for constructing forestry as a profession for the United States.

Bernhard Fernow was born in 1851 to an aristocratic family in Prussia. His family owned a large estate in East Prussia, and his father also made a considerable fortune. Unfortunately, he had fourteen children from three marriages, so there was no way for him to make everyone rich. Fernow's uncle, the younger brother of his father who inherited the family estate (Fernow's father renounced his right in order to take up the profession of law), did not have his own children, however, so he wanted to choose one from his nephews to put in charge of the family estate after his death. Fernow received his early education in the gymnasium at Bromberg, but he showed special interest in agriculture and forestry when he was young, which persuaded his uncle to

make his decision. To make himself a qualified heir of the huge family estate which included a large forest, Fernow entered the forest service at the age of nineteen. After a year, he passed the entrance examination and went to Muenden in West Prussia where there was a famous forestry academy. After two and a half years studying forestry in Mueden, Fernow went to the forefront of the Franco-Prussian War in France, serving as a lieutenant. When he returned to Prussia, he studied law for a year and then returned to Muenden to finish his forestry study. It took him altogether seven years to acquire a forester license, and it seemed that he had a promising future in his field and a huge estate to inherit. But an unforeseen romance with an American girl dragged him away from the designed route. In 1876, Fernow followed his love, departed from the nation with probably the best forestry system in the world, arrived in a nation where people were still felling trees excessively and wantonly, and settled down in Brooklyn, New York City.⁷³

Although Franklin B. Hough was appointed a special forestry agent in Agriculture Department in the same year when Fernow arrived, there was no job available for a professional forester. Working as a scribe in a law office for a while, Fernow found an opportunity to practice, to a certain extent, what he had been trained to do. He became the consulting forest engineer for Cooper Hewitt & Company, managing its 15,000 acres of forest in Pennsylvania to produce charcoal for the mining industry. The Fernows spent six years in the Blue Mountain forest where the German forester intimately observed the condition of forests in the Northeast, and in the meantime,

⁷³ Rodger *Bernhard Eduard Fernow*, 17.

kept close watch on the development of forestry on the new continent. He returned to New York City in 1883, and quickly became involved with the American Forestry Congress established in 1882, serving as its corresponding secretary. In the next two years, he was active in promoting state legislation to manage the Adirondack forest and was asked to write a new bill with Franklin Hough and Verplanck Colvin in 1885, after the three bills proposed by Sargent and his commission for the Adirondack forest investigation were not approved.

Sargent thought that the essential difference between his bills and the new bill was that the latter, instead of addressing the role of experts, reinforced the interference of politicians in managing the state forests, and this conflict might have been the origin of Sargent's dissatisfaction with Fernow.⁷⁴ For the Harvard professor, the German forester had too much personal political ambition to be reliable in defending the nation's forests. In 1886, Fernow became the third chief of the Division of Forestry, succeeding Hough and Nathaniel Eggleston. This appointment might have confirmed Sargent's judgment, so he did not want to have Fernow's name in the correspondents' list of *G&F*, and he discouraged young Pinchot from accepting Fernow's invitation to be his assistant after Pinchot returned from Europe.

Most people did not agree with Sargent's view of Fernow, including Stiles who made acquaintance with Fernow before he became the editor of *G&F*. Stiles thought that Fernow was the "best equipped person" in the nation for what the magazine wanted; thus in *G&F* there were forty articles written by Fernow. In these articles,

⁷⁴ Please see more discussions of the Adirondack forest investigation in the previous chapter.

Fernow discussed the general issues of American forest administration and the relationship between the forest and the natural and social economy, introduced the European forestry system, and also dealt with some more specific forest problems such as the economic value of white pines, the danger of forest insects, and the planting and thinning of forests. Fernow's view of forest management was coherent with the magazine's tone. He emphasized the significance of forests in maintaining soil, headwaters, and the general health of nature's economy, and advocated government's responsibility in regulating the nation's forest land.

But as a professional forester, Fernow's analysis focused more on the economic value of forests, such as the profit acquired from every acre of forest, what species would generate how much revenue in a particular region, and the relationship between forest products and national or local revenue and taxes. He did not endorse Sargent's suggestion to have the Army take control of the forest, although he thought that it could be a temporary solution to employ the Army as guardians of forest, "doing police duty." In the roundtable discussion initiated by *The Century* on Sargent's plan in 1895, Fernow argued that transferring civilian responsibility to the army would suggest that "the present government system was a failure." Another reason for him to disagree with Sargent was that he thought that the most pertinent forest problems in the nation did not exist in the West, where the government owned vast forest land and where only a small fraction of the nation's population lived, but in the populated East, where most land was either private or state owned and the federal army could not enter. In this part of the nation, Fernow indicated that people

“must solve their local problems, be it through state aid guided by wise conception of the providential functions of the Government, or through private interests driven by necessity.”⁷⁵

In the same essay, Fernow also stated his view of establishing a “thorough, scientific, and permanent system of forest management” which was directly related to the formation of forestry as a profession in the United States. Fernow argued that “the first practicable and necessary step” was to realize “a common sense” in treating the nation’s forests in a more careful and wise way before the nation could expect any gradual development of a real forestry system. In *G&F*, Fernow expressed the same view. “We will have to start with a simple, commonsense management,” Fernow said, “and will have to leave the development of better forestry methods to future years, providing only the opportunity of gaining necessary knowledge and experience for the best results.”⁷⁶

On this point, Fernow’s view was consistent with Sargent’s, and they both believed that although a rational forestry system was the ultimate solution to the nation’s forest problems, there was still a wide gap between the maturity of forestry and American social and natural conditions. Sargent’s own work of forestry focused more on the investigation of the natural environment, species distribution, and the relationship between forests and water and soil. Fernow spent a lot of time in introducing and discussing the European forestry system practiced in different nations.

⁷⁵ Bernhard Fernow, “Comments on Professor Charles S. Sargent’s Scheme of Forest Preservation by Military Control,” *The Century*, February 1895, 627, 628.

⁷⁶ *Ibid.*, 627; Editorial, “Management of the National Forest Reservations,” *G&F*, 13 January 1892, 20.

Both of them showed huge patience to do a lot of preparatory work in different ways. This was not the task Pinchot anticipated, however. Sargent failed to persuade his young ambitious American pupil to accept his conservative approach, for the latter wanted not only to be the one who lived to see the recognition of the forestry system in this nation, but also to be recognized as the most significant person who broke the new ground.

Born in 1865, Gifford Pinchot was equipped with all the advantages to be a successful person, or the first American forester. His family was rich and influential, his father was insightful and affectionate, and his education was impeccable. Personally, Pinchot was wise and extremely energetic, he cultivated love for nature and outdoor activities since he was a boy, and he regarded his nation's interest prior to anything else. Like many foresighted Americans in the late 19th century, the senior Pinchot had been deeply influenced by Marsh's *Man and Nature*; thus, before his oldest son went to college, he gave the nature-loving kid a bold but creative suggestion—become a forester—and the son accepted it. When he was a senior at Yale, Pinchot called upon Fernow, Sargent, and some other important figures advocating forest preservation in the nation. Their view of the promise of the new profession was not optimistic, but Pinchot's will was not moved.

After he graduated in 1889, Pinchot went to Nancy to study forestry at the French National Forestry Academy, for there was no school teaching forestry in the United States. His experience in Nancy gave him a good opportunity to know some of the best European foresters, and one of them was Dietrich Brandis, a German forester

who established the forest system in India and was Pinchot's most untiring tutor.⁷⁷ Meanwhile, Pinchot did not ignore the domestic connections he and his father had established. He had frequent correspondences with Sargent, who appreciated Pinchot's less materialistic career choice and his passion for the nation's forests. He kept encouraging Pinchot to write for *G&F*, introducing the European forestry system, which, Sargent said, would "have the effect of bringing you [Pinchot] to the notice of people in this country interested in forests and forest management, and so perhaps pave the way for something for you in the future." Pinchot was also aware of the power of *G&F* in the nation's emerging forest conservation movement. He indicated in *Breaking New Ground* that when he was in Nancy, "as a forester, I studied *Garden and Forest* and the *Mississippi Valley Lumberman*," which took the opposite sides on various issues.⁷⁸ Thus, Pinchot accepted Sargent's invitation happily, and published his first work—a three-part series of articles on "The Shilwald" in July 1890, introducing the Swiss forestry system to the readers of *G&F*.

Pinchot, however, did not take Brandis and Sargent's advice to spend at least two years studying forestry in France, and the reason was complicated. On the one hand, he was eager to bring the efficient scientific system back to the United States, which he thought was in deep need of such a thing; on the other hand, Pinchot and his family were afraid that he would miss the chance to create a career in American

⁷⁷ Brandis wrote twenty five articles for *G&F*, including a five-part series on the oak and birch mixed forests in Spessart, Germany, and a twelve-section series on the Burma teak forests.

⁷⁸ Pinchot, *Breaking New Ground*, 14-15.

forestry. Patriotic feeling mixed with personal ambition motivated this young half-trained forester to hasten home by the end of 1890.

The third day after he landed, Pinchot showed up in the editorial office of *G&F* where he met Stiles. They made a good impression on each other. Pinchot thought that Stiles had “uncommon knowledge of what American forestry should mean, and where it ought to be headed. Then and later I gathered much wisdom and encouragement from him, as he... let his broad common sense illumine whatever he happened to be talking about. It was a most serious loss when he died and *Garden and Forest* died with him.” Both Stiles and Sargent persuaded Pinchot to contribute as much as he could to the magazine. Although occupied by many other things, Pinchot wrote thirteen articles for *G&F* from 1890 on.⁷⁹

The most important endeavor in which Pinchot was engaged after his return was his employment as the forester of Biltmore, George W. Vanderbilt’s 228-square-mile private estate in Ashville, North Carolina beginning in 1891. The young New York millionaire inherited an incredible fortune from his father, and bought this huge estate to build a country house. Architect Richard Morris Hunt was hired to design the 250-room chateaux, and Olmsted was hired to be the landscape architect of the estate. Once again, Pinchot’s family connection worked out. Olmsted had landscaped Pinchot’s family estate in Connecticut and was an old friend of Pinchot’s father. When Vanderbilt and Olmsted came up with the idea of turning Biltmore into a self-sustaining estate with economic forestry, Olmsted thought immediately of his friend’s

⁷⁹ Ibid., 33.

son. Thus, Pinchot rejected Fernow's offer to be his assistant in the Division of Forestry (mainly because of Sargent's warning), and undertook an experiment to create the first scientific forestry system in the United States at Biltmore.

Neither his vision nor his ambition could be confined to a private enterprise, however. In 1893, Pinchot opened his own office as a consulting forester in New York City. After two years, he left Biltmore when he became more involved with the mainstream conservation activities stimulated by *G&F* and other presses and organizations. He joined Sargent, Stiles, and Robert U. Johnson of *The Century* to lobby the Congress to establish a forest commission, as discussed in *G&F*. In the meantime, he wrote essays and presented papers to establish the new profession in the United States.

In 1895, Pinchot published an essay in *G&F* entitled "The Need of Forest Schools of America," in which he offered an exclusive but clear definition of forestry. He pointed that "forestry deals exclusively with forests," and the objects of it were twofold: "On the one hand it has a vital bearing on the water-supply and the prevention of torrents, and an undetermined influence upon the rainfall and climate, and on the other it yields a product which has been so far, and seems likely to remain, indispensable to the progress of civilization." Thus, it was necessary to clarify the boundary between forestry and other fields related to trees. Pinchot wrote: "It is connected with arboriculture and landscape art only from the fact that it employs to a certain extent the same raw material, if I may use such a figure, but applies it to a wholly different purpose.... That wise forest-management secures the natural beauty

of a region devoted to it is a fortunate accident, but none the less an accident, pure and simple. The purpose of forestry is in a totally different sphere,” a utilitarian sphere.⁸⁰

Pinchot, however, did not have time to found a school of forestry at this moment. He left for the West with Sargent and the committee in the summer of 1896, after which he was appointed a special agent to reinvestigate the forests Sargent surveyed, and finally he replaced Fernow in the Division of Forestry, becoming its fourth chief in 1898. In 1905, backed by the equally enthusiastic conservationist, President Theodore Roosevelt, Pinchot laid the groundwork for the U.S. Forest Service and became its first chief.

The earliest forestry schools were founded at Cornell and Biltmore respectively in 1898, by Fernow and another German forester, Carl A. Schenck, who came to the United States and took over Pinchot’s work in Biltmore under the recommendation of Brandis. Schenck was three years younger than Pinchot, and received his Ph.D. *summa cum laude* from the University of Giessen. Compared to Pinchot, Schenck paid more attention to the ecological consequences of forestry. For *G&F* he wrote only a four-part series entitled “Private Forestry and State Forestry” in 1897. In these essays, Schenck pointed out that if private forestry was mainly financially motivated, state forestry had to take into account both the human economy and nature’s economy, and especially the latter, for it was associated with the prosperity of the commonwealth. In many regions, forests’ “value in the economy of mankind is less

⁸⁰ Pinchot, “The Need of Forest Schools in America,” *G&F*, 24 July 1895, 298.

than their value in the economy of nature.” At this time, Schenck argued that the “golden rule” of state forestry was to “be quick in securing forests, firm in protecting and slow in using them,” and he would not “advise, in general, any haste in harvesting tree-growth from the state forests.” The term “state” as applied by Schenck referred to both a nation and a state.⁸¹

Pinchot did not neglect the ecological value of forests, but he regarded scientific forestry as panacea able to meet all demands at the same time. In an essay “Forestry for the Farmer,” Pinchot complained that “the term forestry has come to be associated in the United States very largely with the climatic influence of forests, and the much more important matter of forest-management has been almost wholly overlooked.” This matter was the function of the forest as living capital, generating profit continually under the management of scientific forestry. National forest reservations should not be laid down to merely protect soil or headwaters, but had to be put into instant use to produce timber in a more rational way.⁸²

The bigger difference between Pinchot and Schenck, however, was in their understanding of American society. In *Breaking New Ground*, Pinchot complained that Schenck, “being a German with official training, ... had far less understanding of the mountaineers than he had of the mountains and the woods. He thought of them as peasants. They thought of themselves as independent American citizens—and, of course, they were right.” In fact, it did not take long for Schenck to recognize the

⁸¹ Carl A. Schenck, “Private Forestry and State Forestry, II,” *G&F*, 23 June 1897, 242; “Private Forestry and State Forestry, IV,” *G&F*, 7 July 1897, 262.

⁸² Pinchot, “Forestry for the Farmer,” *G&F*, 2 March 1892, 104.

social difference between democratic America and monarchic Germany. In an essay for *G&F* he wrote, “in this country the principle of individual freedom will long prevent the passing of laws similar to the forest laws of Europe. Entailed forest property is still an impossibility.” What he did not know was how to make forestry adapt to the new social milieu.⁸³

German-born foresters like Schenck and Fernow found it awkward to establish a national-scale conservation movement in the United States. More or less, they identified themselves as Germans, not Americans. Fernow’s biographer Andrew Denny Rodgers pointed out that “Fernow by nature was an austere Prussian. He enjoyed forestry and he was a patriotic German.”⁸⁴ And Schenck, after staying in the United States for almost two decades, went back home to Germany to fight for his homeland during the First World War. They were founders of the earliest forestry schools, even earlier than the Yale forestry school endowed by Pinchot’s father in 1900, but what they tried to do was to introduce European forestry into the new continent. They realized that the foreign system had to adjust itself to the native natural environment, but they could not make it also function in the novel social frame. Personally they lacked Pinchot’s patriotic zeal for the United States; and socially, they were unable to build a powerful social net work such as Pinchot had. After all, the conservation movement required strong political support, and only an

⁸³ Pinchot, *Breaking New Ground*, 65; Schenck, ““Private Forestry and State Forestry, I,” *G&F*, 16 June 1897, 233.

⁸⁴ Rodgers, *Bernhard Eduard Fernow*, 16.

American with considerable optimism about democracy and confidence in science could fulfill this goal. Pinchot was the best candidate.

Sargent could have been such a figure for all his contributions to forest conservation and his social status in American society. But he was not, partly because he had not been trained as a forester, and thus had more interest in individual trees and in the forest's ecological functions than in its general economic profit ability; and partly because he distrusted politics and was unwilling to deal with politicians. His major interest was still academic, and he did not want his magazine to be manipulated by any commercial or political interest. He tried to maintain comprehensiveness in the discussion of forest issues lest it become narrowed and dominated by professional foresters. Thus, besides Fernow, Pinchot, and Schenck, there were some other figures writing on this subject for *G&F*, and most of them were botanists or horticulturists, such as Beal, Pammel, Robert Douglas from Waukegan, Illinois, and J.D.W. French from Boston, Massachusetts. But the most influential non-forester contributor was Jonathan Baxter Harrison, a Unitarian minister and a journalist from Ohio.

Harrison was born in a log cabin in Green County, Ohio, in 1835. His social and educational background was completely different from many contributors to the magazine. In a letter to Charles E. Norton, the prestigious Harvard scholar and educator, he explained: "My father has always been very poor and I have gone to school very little since I was ten years old. From twelve to twenty I worked, at clearing land, raising corn, and hiring out by the month much of the time. We lived in the backwoods. When at home I studied some at night by firelight," for his parents

could not afford candles. Growing up in this humble environment, Harrison observed and conceived the society in a populist way throughout his life.⁸⁵

In 1862, Harrison's articles in *The Students' Responsibility*, a magazine published by a Quaker school for blacks, captured the attention of Charles Norton, who was then editing *Broadsides* and the *North American Review*. A lifelong friendship and mentor-pupil relationship were established between the elite Bostonian and the Ohio backwoods youth. Norton convinced Harrison to withdraw from Methodism and convert to Unitarianism. Harrison moved eastward to be closer to his mentor and to search for financial security. He preached in Unitarian churches in New Jersey and later in Franklin Falls, New Hampshire, where he lived until his death in 1907. Meanwhile, he continued his journalist career, his talent in writing further stimulated by Norton's encouragement and his own experience. In 1880, Harrison headed toward the South with a mission similar to what Olmsted had done about three decades earlier, observing and reporting objectively on the region, the South of ordinary people's life and thought. Also like Olmsted, besides noting the social and political aspects of the South, Harrison closely recorded the agricultural condition, especially the depletion of soil by the monoculture of cotton and neglect of fallowing, crop rotation, and fertilizing, and he urged the introduction of scientific agriculture. In his report on the South, Harrison obtained much inspiration from Olmsted, but his direct communication and cooperation with Olmsted did not start until 1882.

⁸⁵ J.B. Harrison to Charles E. Norton, October 15, 1863, Norton Papers, Harvard University. Quoting from Timothy J. Crimmins, "Frederick Law Olmsted and Jonathan Baxter Harrison: Two Generations of Social Critics of the American South," in *Olmsted South: Old South Critic/New South Planner* eds., Dana F. White and Victor A. Kramer, (Westport: Greenwood Press, 1979), 138.

In this year, when Norton and Olmsted were collaborating in preserving Niagara Falls, Harrison was recruited by them to write a series of essays to arouse public sympathy. His articles, which first appeared as eight letters in the *New York Evening Post*, the *New York Tribune*, and the *Boston Daily Adviser* during the summer of 1882, were considered to be one of the most important contributions to the success of the Niagara campaign. Later they were compiled into a pamphlet entitled *The Condition of Niagara Falls, and the Measures Needed to Preserve Them*. In these essays, Harrison celebrated the natural beauty of Niagara Falls, denounced the “vandalism” in defacing them, and lobbied the state legislature to establish a state reservation to preserve the intactness and wildness of this natural miracle for people in the present and the future. Both the aesthetic value and the social ideal expressed in these articles were consistent with Olmsted’s. In 1885, Harrison and Olmsted were allied in the movement to conserve the Adirondack forest, and Harrison’s newspaper articles were later published in the booklet *The Adirondack Forest and the Problem of the Great Natural Waterways of the State of New York*.

If Stiles was the one enlisted by Olmsted to defend urban parks, Harrison became the eloquent spokesman found by Olmsted to defend wild natural beauty and resources outside cities.⁸⁶ To a great extent, these two persons resembled each other. They both achieved a good career in journalism, and showed talent and drive in reforming public opinion through their pen. They were both religious, and at the same

⁸⁶ Neither Stiles nor Harrison focused on their special spheres exclusively. Stiles had great interest in promoting forestry and the preservation of the grand grove of sequoia in California and other national parks; Harrison co-authored the report *Observations on the Treatment of Public Plantations, More Especially Relating to the Use of Ax* with Olmsted in 1889, which focused mainly on Central Park.

time were enchanted by nature's aesthetic and spiritual force. They both had strong interest in scientific agriculture, horticulture, and forestry, and were confident about improving the natural and social environment through the rational use of new tools and techniques. Interestingly, they were both described by their friends as Abraham Lincoln-like figures, probably because of their lanky appearance and more importantly their care for ordinary people. Stiles undoubtedly had a more complete and systematic education than the self-educated Harrison did, and was more talented and knowledgeable in various forms of art. Although they were both adamant adherents of democracy and devoted to public good, Stiles focused more on urban common people and their welfare, concerned with their alienated relationship with nature, while Harrison mainly discussed the problems of people living in the countryside, such as farmers and tenants, and especially Indians and blacks, trying to adjust their relationship with nature.

Harrison contributed thirty-two articles to *G&F*, among which was a seven-part series on the shore towns in Massachusetts exploring "to what places on the shore the public had a right to resort and what further provision was needed in this direction." But all the other essays discussed forest issues on national and regional levels, especially the forest of the Northeastern states, for he was the secretary of the National Forestry Congress. In these essays, Harrison related the future of the forest to the progress of civilization through analyzing its aesthetic value, economic profit, and ecological impact. Like other contributors to the magazine, Harrison urged the application of scientific management to forests and government control of public land,

but he paid particular attention to the relationship between the welfare of farmers and the implementation of forestry. He argued that the deterioration of the rural economy was partly due to the farmers' ignorance of the native environment, forcing land suitable only for forest growth into use for agriculture and grazing. Consequently, the fertility of soil was exhausted, farmers were impoverished, and farms were abandoned. To change this situation and to save forests in general, Harrison indicated that people could not rely solely on government and legislation, and the crucial factor was still the enhancement of public environmental awareness.

Basing on this view, Harrison hailed the aim and function of *G&F*. In an 1888 address to the annual meeting of the Pennsylvania Forestry Association, he stated:

A long course of education of the people regarding the facts of the subject will be necessary before adequate legislation can be devised or efficiently applied. What we chiefly need now is an era of teaching and instruction regarding the subject-teaching that shall be intelligent and intelligible, comprehensive, coherent, systematic, iterant and authoritative, because based upon competent knowledge. The greatest step in advance ever taken in this country in connection with forestry subjects has been made this year, in the establishment, in New York, of a journal devoted to the discussion of forestry in all its aspects, and to the dissemination of knowledge in relation to this subject.

The magazine he referred to was *G&F*.⁸⁷

For ten years, the existence of the magazine allowed professionals such as Fernow and Pinchot and amateurs such as Harrison to express and exchange their views on an equal and shared platform. More importantly, the magazine managed to achieve a balance among various disciplines and opinions, maintaining comprehensiveness in its effort to establish new professions and give new definitions to traditional ones. In both aspects, *G&F* was successful.

⁸⁷ J.B. Harrison, "The Pennsylvania Forestry Association," *G&F*, 23 March 1888, 155.

In 1899, eleven landscape architects founded the American Society of Landscape Architects; and most of its early members had been contributors to *G&F*. In 1900, Pinchot initiated the Society of American Foresters, a national professional and educational organization. In the new century, these new professions would keep growing and changing, but some of their fundamental principles found their origins in *G&F*. The magazine insightfully and correctly predicted that in this increasingly urbanized and industrialized society, conflicts between man and nature became too complicated to be solved merely by government legislation and public enthusiasm. The advocacy for expertise in *G&F* helped make the new professionals play more active and powerful roles in managing the nation's natural resources and restraining the ignorant and excessive exploitation of nature motivated by private, political, and commercial interest. Scientific research and professional training in all the fields discussed in *G&F* have contributed to the improvement of urban environment, the preservation of wild scenery, and the conservation of forests.

What the magazine failed to predict was that, in the evolution of these professions, the comprehensive view maintained by *G&F* was forgotten or deserted by many new professionals. Melanie Simo points out that "it is a familiar story, the progressive breaking down of complex wholes into manageable (or profitable, or analyzable) parts. In time, special tools and new words allowed people to discuss increasingly finer distinctions among increasingly fewer people."⁸⁸ If the search for professional esteem did not necessarily lead to the contempt toward other professions and

⁸⁸ Melanie L. Simo, *Forest and Garden*, xii.

amateurs, at least to some extent, it hindered the intimate cooperation and dialogue among them. This fragmented consciousness was the logic consequence of modern science whose fields grew to be gradually narrower and more focused. The encyclopedic knowledge of the 18th century naturalists was cast into the shade of modern specialized scientific education. The balance between beauty and utility, city and countryside, garden and forest, and nature and culture that *G&F* sought to fulfill was swept aside in the trend toward professionalization, and as an outcome, the magazine itself also failed to find a suitable spot for its existence.

Chapter 4

Nature and the Civilized Imagination

Late 19th century Tunis, a small French colony on the tip of the vast desert in Africa, might have seemed remote and exotic to most people living on the other side of the Atlantic Ocean. Although Tunisians could trace their history back to the 10th century B.C., for most Americans, marching in the swiftly changing process of an industrial and urban era, this semi-arid part of the world was only semi-civilized. But a 68 page report upon the cultivation of olive trees written by the director of agriculture in Tunis, Paul Bourde, captured the attention of the editor of *G&F*. In an issue published on November 22, 1893, an editorial titled “The Desolation of Central Tunis: Was it Caused by the Destruction of Forests?” restated the rise and fall of that colony’s civilization described in Bourde’s report.¹

After depicting the natural environment of Tunis, the essay briefly introduced the history of that landscape. It backed the argument made by Bourde that there had not been “high, continuous forests” in Tunis. The so-called forests in Tunis were cultivated fruit trees. “The country,” said the editors, “is exceptionally favorable for one kind of culture and is not at all suited to another. Before the Roman invasion this cultivation was unknown and the country a desert. The Romans introduced it toward

¹ Paul Bourde, *Rapport sur les cultures fruitières et en particulier sur la culture de l’olivier dans le centre de la Tunisie* (Tunis, Imprimerie générale Picard & cie 1899). I acquired this information from the Library of Congress, but there was another report published in 1893, in the same year when *G&F* published this editorial;

Editorial, “The Desolation of Central Tunis: Was it Caused by the Destruction of Forests?” *G&F*, 22 November 1893, 481-2.

the end of the first century, and became rich; the Arabs destroyed it in the eleventh century, and the country has become a desert again.” The essay went on to say that the Arabs had tried to procure pasturage in this arid land, but “the substitution of a nomad and pastoral population for a stationary and fruit-growing population was only effected at the cost of immense disasters.”²

For a modern reader, this essay strikingly delivers itself as a work of modern environmental history. From the prosperity that followed the conquest of Romans to the decline caused by the occupation of Arabs, the author of the essay stressed that human adaptation to the natural environment had a powerful impact on the civilization of Tunis. According to the magazine, the level of the civilization of Tunis might have not been comparable to the one Americans were creating, but, as J.B. Harrison pointed out: “The laws and forces of nature will not make exceptions in our favor, though we are a great country.”³

The recurrent theme of *G&F* was to orient nature’s position in this new age, or in other words, to find out how nature could better serve the civilization. For ten years, Sargent and Stiles tried to insure that their magazine maintained a coherent tone. It was their purpose to integrate a variety of voices into a single forum so that they could show a panorama displaying the more complicated and profound relationship between nature and culture. Firmly anthropocentric in their stance while soberly recognizing the agency of nature in the development of human history, the two

² Editorial, “The Desolation of Central Tunis: Was it Caused by the Destruction of Forests?” *G&F*, 22 November 1893, 481-2.

³ J.B. Harrison, “Forests and Civilization: The North Woods, VII,” *G&F*, 11 September 1889, 441.

editors and all their contributors attempted to build a more harmonious and prosperous society in which nature played an indispensable role.

The connection between gardens, the more tamed part of nature, and forests, the wilder one, actually was not nature, but civilization. In her series of essays on landscape gardening, Mariana Van Rensselaer said: "Every step in civilization is a step away from that wild estate which alone is really nature; and the further away we get from it, the more imagination is needed to bring the elements of existence which nature still supplies into harmony with those which man has developed." Both gardens and forests were full of these elements, and these contributors indeed were trying to incorporate different forms of nature into the fabric of civilization, so that the latter could be more advanced and refined.⁴

Although coming from diverse fields, these contributors shared more frequent physical and mental communication with nature than most urban people for they had to work with nature directly. Not only did this contact make them acquire fuller knowledge and understanding of nature, but also it led them to a more intimate association with it. The magazine offered many, diverse perspectives on the human relationship with nature: some of them were more utilitarian and some more aesthetic. But all were impressed by the omnipresent force of nature in human society, and all were deeply concerned with the effect of this force on the progress of civilization.

They were more unanimous in their high valuation of civilization than in their vision of nature. The editors and contributors of *G&F* consciously promoted the self-

⁴ Mariana Van Rensselaer, "Landscape Gardening, V," *G&F*, 28 March 1888, 51

esteem of American civilization, which acquired its nutrition from the European cultural and racial soil, and found inspiration in the natural environment of the New World. The essence of their perception of modern civilization rested on a commitment to modern science and a faith in democracy. When they were talking about a civilized world, they referred to the Euro-American world.

They did not deny that there were other civilizations existing outside the western world. Compared to most people in their age, many of the contributors of the magazine had substantial acquaintance with and sympathy for some non-western civilizations. Contributors interested in landscape architecture and art, for example, wrote essays on Oriental and Persian gardens, and Japanese and Chinese landscape art and floriculture, although in general, their interest in these ancient civilizations was superficial and temporary, seeking for novelty and exotica. The botanists and horticulturists writing for the magazine were more intrigued by the natural species of these remote places on earth, rather than their culture and societies. For the foresters, the only inspiring source of ideas was European forestry. They discussed Indian forestry, but it was all derived from the European foresters. None of the magazine's contributors ever intended to apply any non-western cultural elements to any extent in shaping the man-nature relationship. Their approaches and philosophies were fundamentally western.

Living in a period full of changes, these contributors represented transitional intellectual and social trends. Their obsession with the beauty of nature echoed the Romantic movement, their confidence in science was the continuation of the fading

Victorian age, and their advocacy of the public spirit was a prelude to the Progressive era. Living at the crucial turning point of American history when it was becoming the new empire of the world, they had good reasons to embrace her civilization. But under the surface of their optimistic celebration, they were deeply anxious about the direction which their civilization would take. In one of the editorials entitled “Attacks on Civilization,” the editor warned that “it is a matter of importance for the American people to learn as soon as possible that under the conditions of our national life, nothing in our civilization will keep very long. It must be perpetually reproduced, must in some way always be the fresh expression of the life and thought of the time, or it will decay and vanish.”⁵

The unavoidable trend of urban sprawl, the intruding transformations brought by industrialization, the official closing of the frontier, the haunting fear of the “forest famine,” the accelerating growth of material life, the inequality of the distribution of wealth, all these hidden and emerging problems of their civilization left them feeling a sense of urgency and of responsibility to find a way for their civilization to survive and continue to progress. The editors claimed that “the new interest in forestry and related subjects in this country is a natural development. It is time for it. It is an important next step in our national progress. The production among our people generally of a vital and intelligent appreciation of the true place of forestry and landscape-art among the forces which improve mankind would constitute a real advance in civilization.” But because of the self-esteem of American civilization,

⁵ Editorial, “Attacks on Civilization,” *G&F*, 23 October 1889, 505.

these American intellectuals were searching for remedies almost entirely within their own cultural system and believed in its promise of self-perfection.⁶

Thus, the central question of this chapter is: what was the magazine's general view of the relationship between nature and civilization? According to *G&F*, what is natural and what is not? How should civilization regard nature? What impacts did influential contemporary intellectual and social trends have on the contributors' vision of nature? What was their concept of a true love of nature and what agency, according to the magazine, did nature have in the development of civilization? Should science assist the work of nature or subdue nature's force to make it function in a more efficient and wise way? Should art imitate nature's beauty or redeem it from a chaotic situation and bring it to an ideal state? How could the country reinforce its democracy through rectifying the relationship between nature and society?

The problem of defining nature did not bother intellectuals living at the end of the 19th century as much as it does intellectuals in the 21st century. But there was no doubt that nature was an "ambiguous term" for them. In a review of John Burroughs' new book *Riverby*, the author pointed out although Burroughs lacked the comprehension of "the high moral purpose which drove Thoreau into wilderness," the wholesome idea of the book was still fascinating. The author cited Burroughs own words: "We cannot all find the same things in Nature. She is all things to all men.... In her are all manner of tastes science, art, poetry, utility, and good in all. The botanist has one pleasure, the ornithologist another, the explorer another, the walker

⁶ Editorial, "Arbor Day Tree-planting;" *G&F*, 23 January 1889, 37.

and sportsman another; what all may have is the refreshment and exhilaration which come from a loving and intelligent scrutiny of her manifold works.” Then, for the contributors of *G&F*, what was nature? Many of them were themselves creating an artificial nature inside and around cities, and many of them were trying to “improve” wild nature to make it more useful or accessible. Were their products natural or non-natural? Or to what extent were these works still a form of nature?⁷

Instead of seeing nature merely as an object, humble like an aster or as sublime as Yosemite Valley, they extracted nature from a specific existence and defined it more as a force, spontaneous and regenerating, which had long been in a contest with human beings and had always been the winner:

Studying little by little the influence of the forest, we come to understand the intimate relation between man and nature—that relation which is a struggle of rival forces, in which the silent, mighty mother inevitably wins the battle. If at the first glance man seems her ruthless adversary, the tormentor of the earth, the wrecker of woods, the destroyer of beauty, the boastful pigmy who would assault a colossus, we soon come to learn that in wronging her he but evokes a doom as sure and terrible as his assault has been reckless and violent.

In an essay on the preservation of a Massachusetts forest, Sylvester Baxter stated that compared to permanency and endurance of the force of nature, humans’ power was only a “passing incident, transient and erasable. ...The abiding impression is that of Nature herself, and humanity appears to be but one of her forces, temporarily modifying the earth's surface, like the beavers, the ants or the earth-worms. And how the trees serve to veil the structures of man!” Once human beings were absent, it

⁷ “Book Review,” *G&F*, 12 December 1894, 499-500.

would not take several years for nature to wipe out all their traces and “relapse into utter wilderness.”⁸

By recognizing nature as a force, these contributors had to solve the question, not whether their works, such as landscape gardens, were nature, but how to balance and harmonize these two opposing forces in a modern society. They never denied the power of art in the creation of a park or a garden; on the contrary, they intended to make the public recognize this power, and thus respect it. In one editorial on the relationship between formal and natural landscape architecture, the editor pointed out that “it is important thus to realize that no garden or park or landscape picture can be treated in a ‘natural way’—that the work whose result comes nearest to Nature's cannot be more than naturalistic work; for this realization will, in the first place, teach us to apply a right standard when we judge works of naturalistic kinds...” The essay went on to say that “no garden can be altogether artificial, and none can be altogether natural.” But no matter in which style or form, “nature must be allowed her freedom to some extent, even where all the trees are clipped and all the grass is shorn and all the flowers are set in pattern-beds. Within the prescribed shapes and lines she must grow her flowers and foliage as she will, and she must supply light and shadow and the atmospheric envelope. And, on the other hand, artificial, formal elements must enter into every landscape which man's foot is to tread and man's eye is to enjoy as a work of art.”⁹

⁸ Editorial, “The Tree as a Schoolmaster,” *G&F*, 24 February 1892, 85; Sylvester Baxter, “A ‘Massachusetts Forest,’” *G&F*, 5 August 1891, 362.

⁹ Editorial, “Formal Gardening: Does it Conflict with the Natural Style?” *G&F*, 15 March 1893, 119; *ibid.*, 22 March 1893, 129.

Nature, as a force, existed everywhere, but wherever there was man, nature's force was mixed with human force. The distinction between wild and tamed nature was not what the scene looked like, but which force was superior to the other. In the so called wilderness, although humans might have had their impact on the landscape, the predominant force was natural, and the cultural one was subordinated to nature. In a city park, however, human force was the master, controlling and directing the force of nature.

A fascination with the beauty of wilderness did not necessarily lead to a rejection of the more humanized landscape. The line between the natural and non-natural had always been ambiguous and fragile, for in many cases the landscapes “do not show us what nature wants to do or can do—only what man and nature have chanced to do together.” The magazine urged people not to overlook the landscape surrounding them; although more artificial, it could supply order and convenience, as well as man-made beauty, which was more suitable for human life.¹⁰

Furthermore, the magazine pointed out that, although there were conflicts and struggles between nature and human beings, there was also harmony and cooperation in many ways. In its editorial, “The Beautiful in the Surrounding of Life,” the magazine praised John Ruskin's thinking. In the *Poetry of Architecture*, the English thinker said that on the primitive level in the evolving relationship between nature and human, humans relied on wilderness and rarely thought of changing it. Later, because of the need for food, they were forced to adopt agriculture. Then, villages,

¹⁰ Van Rensselaer, “Landscape Gardening, V,” *G&F*, 28 March 1888, 51.

towns, cities, gardens, and palaces all came into being. In this long process, “mother Nature stands ready to adopt it as her own, and to make of it [a] landscape rich in meaning and pathos such as no primitive wilderness can show.” At the end of the essay, Ruskin hailed the charm of farms in Sweden, the villas on the banks of Lake Como, the English deer-park, the Italian villages, and the American towns of Hadley and Deerfield. After all, the editor concluded, “the beauty of these memorable humanized landscapes is nothing extraneous; it is not something added to the landscape after the main lines have been laid down; it springs directly from the fact that these fields, trees, ways and buildings have been arranged first with reference to the needs, uses and enjoyments of real life in their respective lands and climates, and it is their perfect conformity to these principles which constitutes the essence of the beauty we admire.”¹¹

The editors and the contributors of the magazine were not philosophers and did not really intend to pursue the nature they were dealing with into the labyrinth of philosophy. They cared more about social and practical issues rather than metaphysical ones, although it is easy to discern the influence of important intellectual trends, such as Romanticism, transcendentalism, Darwinism, and the impact of religious thought.

Many of these intellectuals were not traditional Christians, and their religious views were more inclusive than sectarian. Rather than simply claiming that nature was the creation of God, they also admired Darwin’s evolutionism. “The survival of

¹¹ Editorial, “The Beautiful in the Surroundings of Life,” *G&F*, 9 November 1892, 529.

the fittest” was one of the doctrines frequently used and quoted by them. In their works, as large as the management of forests and big urban parks or as small as the hybridizing of one species of orchid, they claimed themselves to follow the rule of nature instead of God. In fact, the term “God” barely appeared in the magazine’s pages. Through learning from nature, the magazine also challenged the sanctified absolute superiority of mankind in nature. In one of its editorials on the uses of flowers, the editors said:

Monsieur Joigneaux claims that the love of them [flowers] is one of the important differences between man and the brute, but, unfortunately, modern science reveals that, after all, the primary cause of the color and fragrance in flowers was to make them attractive to birds and insects; and as the Poppy-bee and Australian bower-bird manifest quite as keen an appreciation as we do of their decorative value, the Frenchman's theory has no more substantial basis than the vainglorious assumption that the universe was made for man, and that he is superior at all points to other created things.¹²

Furthermore, in nature some of them felt a sort of kinship connecting them with all other lives, which indicated the presence of pagan animism. In the comparison between the lovers of natural scenery and nature, the editors said that a true lover of nature, “when alone in the dense forest or in some sunny glade a mysterious sense of kinship with the silent forces working all about him, or a dim consciousness of a haunting presence, comes to him unbidden and ravishes his soul with suggestions of a more awful beauty some day to be revealed, and after such hours of communion with nature he can return to the noisy world refreshed in spirit and strengthened for the inevitable conflicts of life.” For some who had faith in God and his creation, like Stiles and Mary C. Robbins, as I suggested in the previous chapters, that nature,

¹² Editorial, “Some Uses of Flowers,” *G&F*, 23 March 1892, 133.

rather than the Bible, was the more vivid and reachable manifestation of the design of God.¹³

The conventional Christian relationship between nature and human beings, however, was still influential. Although it tried to reconcile the antagonism between these two camps over the meaning of Genesis, the magazine also stressed the Christian ideal of stewardship and reverential contemplation. In an issue published in 1891, *G&F* cited words from Ruskin again: “God has lent us the earth for our life; it is a great entail. It belongs as much to those who are to come after us, and whose names are already written in the book of creation, as to us; and we have no right, by anything that we do or neglect, to involve them in unnecessary penalties, or deprive them of benefits which it was in our power to bequeath.” Throughout the magazine’s history, it advocated the stewardship of humans, or more specifically of Americans and their governments, to manage the earth and take care of it.¹⁴

But there was a subtle difference between Christian teaching and the perspective of *G&F*. Instead of being the temporary manager of earth, these contributors in general thought they were the legitimate owners of the land, and rather than giving earth back to God at the end of time, they were concerned about maintaining its fertility and richness for future generations. In an editorial “The Defacement of Natural Scenery,” the editor said that “the simple truth is, that few persons ever think of natural beauty as a possession worth considering by ‘practical’ men, much less as a public possession which it is a patriotic duty to preserve and transmit to posterity.”

¹³ Editorial, “The Love of Nature,” *G&F*, 20 July 1892, 337.

¹⁴ “A Quote,” *G&F*, 8 July 1891, 314.

Two years later in an editorial under the same title, the editor rearticulated his idea that “natural beauty is to a certain extent an inheritance of all the people, that it has a real value like pure air and fresh water,” and he asked his contemporaries to realize that their descendants would appreciate this outward beauty more even than they did if they could preserve it for them, “for this feeling has grown in depth and strength with the growth of the race, and it will probably continue to grow.”¹⁵

By considering nature as a public possession, the magazine further distanced itself from traditional Christianity. The teaching of Christianity tells its followers to “be fruitful, and multiply, and replenish the earth, and subdue it,” or in another words, to make two blades of grass grow where only one grew.” However, maintaining and improving the shape of earth, for many of the contributors, did not mean turning every inch of the land into a farm or merely acquiring economic profit from it. Beauty was always a central theme in their sense of “improvement.” On the one hand, they had the dream of making their continent “blossom like a garden.” On the other hand, they thought it was equally important to preserve its wilder beauty, because “wild landscape—the scenery of the natural world—possesses infinite interest and charm for those of us who live caged in towns and cramped in houses, and we greatly enjoy both traveling in search of it and reading the praise of it.” The picture of a garden and the scene of wilderness were not contradictory, because they both displayed the beauty of nature.¹⁶

¹⁵ Editorial, “The Defacement of Natural Scenery,” *G&F*, 7 December 1892, 577; “The Defacement of Scenery,” *G&F*, 27 February 1895, 81.

¹⁶ Editorial, “The Beautiful in the Surroundings of Life,” *G&F*, 9 November 1892, 530.

This stewardship also led to a moral responsibility toward nature. First of all, the magazine argued that it was people's moral duty, or more specifically their patriotic obligation, to protect natural resources and natural beauty. But more importantly they wanted people to be aware of the moral refreshment and elevation generated by the communication with nature. The editor wrote that "the contact with natural beauty is one of the potent agencies for establishing sound minds in sound bodies; and since this is the source and condition of all well-directed ambition and effort, a reckless destruction of this beauty is a blow not only at one of the highest and most satisfying pleasures of the people, but at the public health and the public wealth." When comparing formal landscape gardening with the natural style, the author argued that the formal one was appealing because of its beauty alone, but the natural garden could reach the "nobler part of man's nature." He said that the natural parks suggested something beyond pure beauty composed of perfect color and form, and "its essential charm is in the inner meaning to which it gives expression so as to move the feelings and touch the heart." This charm is from unaltered nature.¹⁷

In an editorial entitled "Nature and American Literature," the magazine discussed a newly published book *Literary and Social Essays*, in which the author William Curtis reviewed various literary works by his contemporaries. *G&F* indicated that the magazine was less interested in purely literary themes than in practical issues, but from this book the editors read the "stern moral rectitude" among literary New Englanders, with its root in "a deep and genuine love of nature". The editorial

¹⁷ Editorial, "The Defacement of Scenery," *G&F*, 27 February 1895, 81; "Formal Gardening," *G&F*, 20 September 1893, 205.

summed up that region's tradition: "In Thoreau this enthusiasm for nature was combined with a stern moral purity; in Hawthorne, with a rich, though somber, imagination, and in Emerson, with a noble and serene philosophy, but in the moral fiber of all the three was the granite strength of the New England hills, and to their inspired imaginations the tranquil scenery about Concord was a symbol of the repose and balance and harmony of the universe." In their interpretation of these pioneering mentors, the editors tried to convey their own cognition of nature and its tie with morality.¹⁸

The contributors of *G&F* did not attempt to hide their apprehension over modern urban manufacturing culture and its impact on traditional rural morality. They could accept urbanization as an unavoidable trend, and to great extent, they embraced its coming for it symbolized the advancement of civilization. But this did not mean they would expect their fellowmen to live amid the ruins of morality. From natural beauty, they found the source of morality; or more accurately speaking, they associated natural beauty with the fading rural society where a simple and pure moral life had been singing its Acadian melody. *G&F* suggested that people should look for recreation in the countryside, not only to enjoy the fresh country air but to cherish the opportunity of breathing in a "wholesome moral atmosphere."

In this sense, many contributors were nostalgic and dreamed of a lost or perhaps never existing Paradise. This sentiment, however, is not limited to Christian culture,. Almost every culture has created its own ideal of paradise; while the layout might be

¹⁸ Editorial, "Nature and American Literature," *G&F*, 8 May 1895, 181-2.

slightly different, the essential idea is the same. The uniqueness of this Christian contemplation of nature is that it encourages people to discover the laws of the creation of God, a pursuit that initiated the emergence of the modern scientific spirit in western Europe in the 17th century. Further developed in the 18th and especially the 19th century, this spirit prevented the society from lingering in the imagined Garden of Eden, pushing it toward the locomotive of progress, which was driven by the marching industrialization inspired by the improvement of modern science in the late 19th century American society.¹⁹

The contributors were also the passengers on this machine, and to a certain extent, were the drivers of it. The ideal landscape portrayed by them, however, was not a mere repetition of the traditional pastoralism. A new landscape, according to the magazine, would integrate the virtues and beauty of countryside with the advancement and convenience promoted by industrialization. Thus the magazine sought common ground for both sentimental nostalgia and faith in modern science and industrial progress.²⁰

A simple cold machine—like modernity was not their ideal. Instead they expected the scientific spirit to deepen a complex, warm, aesthetic sentiment. *G&F* tried to convince its readers that the study of science would not blunt people's instinct for beauty and consequently make them lose the poetic and romantic feeling when they located themselves in nature. On the contrary, they argued, the scientific spirit and the aesthetic sentiment would complement and strengthen each other. The magazine

¹⁹ Editorial, "The Summer Vacation," *G&F*, 12 August 1891, 373.

²⁰ I will discuss the characters of the landscape they intended to build in the next chapter.

reviewed a little book by Bradford Torrey, titled *Rambler's Lease*, in which Torrey deplored the irresistible strong yoke of modern life on people and argued for his “ideal plan” of two outdoor rambles every day to experience the beauty of nature and cure the physical and mental diseases that came from civilization. He further suggested that to refine this aesthetic mood, the Rambler should study at least one natural science, but “make sure that his acquaintance with out-door life is sympathetic and not merely curious or scientific.” The reviewer concluded that “only by a combination or alternation of the two moods-the two attitudes --can the truest enjoyment be extracted from the natural world.”²¹

Undoubtedly, the favorite field of natural science that *G&F* encouraged people to study was botany. This field would offer clues to solve the riddle of nature's economy, and at the same time revealed the small but authentic beauty of nature. In the ten volumes of the magazine, botanists introduced to their readers thousands of new species of plants from all over the world, their genus, habitats, characters, structures, flowers, leaves, and colors. At the same time, many editorials focused on little known American indigenous plants, which, to some extent, were offered to provoke patriotic and sometimes local feeling among the readers. Most importantly, they believed that the study of botany would train people's eyes to seek beauty in nature anywhere and anytime, and lead them to a more personal association with nature.

In an editorial titled “Botany for Young People” published in 1890, the editors argued that the function of botany was to aid youth in establishing a relationship with

²¹ “Book Review,” *G&F*, 25 December 1889, 623.

natural beauty. They rejected the prevalent idea of the study of botany that “the more one learns about plants the less will one appreciate their beauty. The scientific attitude is held up as the reverse of enjoyment; scientific knowledge is proclaimed to be deadly to artistic or poetic feeling.” The editors pointed out that, by pulling a flower into pieces to learn the interior of its structure, a person could come to understand the wonderfulness of reproduction. Only when the truth of the interior was revealed, could the beauty of the exterior be more wisely and fully appreciated. “The exterior suggests the interior, and a knowledge of the interior explains the lovely individuality of the envelope.” By studying botany, people would make more acquaintances inside nature. Rather than waiting for the coming of beauty, they would look for beauty on purpose, and finally this action would become spontaneous. They would detect beauty in the most “unpromising places.” Their eyes would not miss the most subtle and humble aspect of nature. “He will,” said the editor, “delight in the exquisite beauty of the infinitesimal blossoms of the Door-weed on which passive, uninstructed observers will never have perceived a blossom at all; and will be enchanted by the flowers of the Pigweed even, despised of the multitude, but honored by him as a treasury of interest. Nor, surely, will his new appreciation of such humble charms lessen his feeling for the splendor of the Iris he finds in the swamp or the Meadow Lily that flaunts by the way-side.”²²

Later the editor received a letter from a person named W.G.R., who claimed to be intrigued by the magazine’s advocacy of the study of botany and thought it was

²² Editorial, “Botany for Young People,” *G&F*, 26 February 1890, 97.

necessary to contribute Yale president Timothy Dwight's comments on this subject. He quoted that "science everywhere brings us into a close relationship with nature.... There is cheerful hope for the youth whose mind and heart are stirred with love for all the truth and beauty hidden in the natural world." To attain this close relationship with nature, the editor urged botany study to break through the walls of a laboratory and the pages of a book and step into the field, experiencing nature in the most direct and lively way. In another editorial, the editor stated again that the essential point in studying botany was to study the objects directly, not to read about them in books. "This contemplation of nature," said the editor, "on what may be called its imaginative or poetic side differs widely from the mere study of natural science, but it implies some knowledge, and a growing knowledge, of Nature, and science is only knowledge systematized." The essay went on to say that some were afraid that the absorption of knowledge about nature would lead to an unbalanced passion for nature, but the author argued that this passion was "normal and wholesome," while "the indifference to Nature and the insensibility to her kindly influences, is morbid."²³

Their central view of nature, with their intention to blend science and beauty into a unified force, however, was still traditional and nostalgic, perceiving nature in general as a harmonious system. This did not mean that they were ignorant of the brutal side of nature, but the world, consisting mainly of plants, was fundamentally not competitive or cruel. The moving creatures living in this world were mainly beautiful birds, furnishing human life with colorful feathers and lovely songs. There

²³ W.G. R., "The Study of Botany," *G&F*, 30 April 1890, 218; Editorial, "Elementary Botany for Young People," *G&F*, 31 December 1890: 629; "The Summer Vacation," *G&F*, 12 August 1891, 373.

was fighting against the so called “pests,” such as insects and English sparrows, but this war, when compared to the bloody beating and tearing in the purely animal world, was more like the struggle between civilization and savagery. And when compared to the emotionless, hideous industrial world, for many of these contributors, nature represented a world full of tender feeling and implied the disappearing rural virtue. Being afraid of the modern alienation from nature, they wanted science to touch the soil, the trees, and the flowers, to sense the dynamic universe. Only when scientific knowledge was compounded with the aesthetic instinct, would the true love of nature flourish.

Both editors and contributors tried to give a definition to the love of nature. In an editorial on “The Future of American Gardening” published in the 1888, the magazine claimed that “the basis of good gardening is the love of nature. To nature the gardener who would be something more than a mere cultivator of plants must turn for inspiration. From the study of nature alone can be learned composition, harmony and fitness in arrangement, and without these the gardener can never hope for success in the creation of a landscape.” In fact, according to the magazine, this love of nature, not utilitarianism—should be the foundation of humans’ relationship with nature.

Throughout its history of publication, the magazine lamented the vanishing of wild flowers, condemned the vandalism of natural scenery, sighed over abandoned farms, and raged about the trampled woodlands. It celebrated the beauty of nature and admired its power. For many of the contributors, the love of nature blossomed with the coming of civilization, but it began to germinate at the most primitive level of

human history. Yet an affection of fresh air, blue sky, and clear water was not the end; the true love of nature would internalize this physical pleasure into an aesthetic and more deeply spiritual thirst, and a purposeful, lifetime search.²⁴

This love of nature, argued the magazine, was not the same thing as the love of natural scenery. The latter was a more profound emotion mixed with memory and imagination and appeared only when civilization had developed to certain degree, while the former was at the beginning an instinct even among the “savages” and a “birthright of every healthy child.” The love of natural scenery was confined to a more elevated love of beauty that was spectacular, awesome, and unfamiliar. The editor was aware of the growth of the love of natural scenery, but he was not certain to what extent the love of nature was also cultivated. Although celebrating and encouraging this emotion of natural scenery, the magazine also warned that people were liable to neglect nature itself when they cared too much about the conspicuous side of nature. It said that “the true test of a love of nature is that one who gives interested attention to all natural effects and forms, and finds beauty where the average eye sees none.” This love then could penetrate the surface of the marveling scenery, and touch the essence of nature.²⁵

“The true lover of nature,” said William Blake, can ‘see a world in a grain of sand and heaven in a wild flower.’” For the editor of *G&F*, this quote contained the truth of the love of nature. Instead of expecting the ever dramatic transformations of nature,

²⁴ Editorial, “The Future of American Gardening,” *G&F*, 7 March 1888, 13; Van Rensselaer, “The Art of Gardening: A Historical Sketch, I,” *G&F*, 20 March 1889, 134; Editorial, “The Love of Nature, I,” *G&F*, 20 April 1892, 193.

²⁵ Editorial, “The Love of Nature,” *G&F*, 20 July 1892, 337; “The Love of Nature, I,” *G&F*, 20 April 1892, 193.

a true lover of nature would observe the most subtle and trivial variation in the course of seasons and days. The flowers strewn by the night rain, the light and shadow of the foliage under the sun, the golden grass waving in the blowing wind, the nude but elegant trunk of a tree standing in snow, all these common but mysterious objects suggested the vitality of a holistic natural world and inspired a deep poetic sentiment.²⁶

But loving the most humble, familiar elements of nature did not mean that a person should be indifferent to striking scenery. The editors described their aesthetic philosophy:

Great things impress him, but small ones enchant him, and he gathers pleasure from the road-side grass as well as from the giant Oak or the sky-line of a rugged mountain range. There is a beauty of the Lily and a beauty of the Pine, a beauty of the mountain and a beauty of the plain, a beauty of wide outlooks and a beauty of enclosed and sequestered corners. One kind of necessity excludes another kind; but that does not matter to him, for all arrest his eye, interest his mind, and make appeal to his imagination and his heart.

This inclusive love of the beauty of nature made their interest much broader and more open. The tamed part of nature inside cities, the part that people were contacting and experiencing everyday, was not less influential and significant than the remote wilder part of nature. Neglecting either part would be a mistake, and the destruction of either part would lead to the collapse of the entire picture. Because the everyday nature surrounding humans was too normal and sometimes too minute to manifest itself, the editor and those landscape architects wanted to awaken more enthusiasm for it among

²⁶Editorial, "The Love of Nature, III," *G&F*, 11 May 1892, 218.

their readers. They had clearly seen that the majority of people in this modern world had to live their daily lives with this diminished urban patch of nature.²⁷

The love of nature's beauty was combined with respect for nature's potency. As analyzed at the beginning of the chapter, these contributors defined nature as a force, shaping human activities and competing with their power. Throughout the volumes of *G&F*, numerous editorials and essays exalted this force. In "Forest and Civilization," J.B. Harrison wrote: "Man has no power to create a new world. He has not yet learned how to take care of the one which he inherits, but his ability to wreck and exhaust it is very great. The accumulation of the soil of the planet, out of which must come everything that supports human life, civilization and happiness, has been the slow, patient process of vast and unimaginable periods of time, and it has been chiefly the work of vegetation." The magazine pointed out that, whether in the creation of a landscape garden or the management of a productive forest, humans always needed to work with nature rather than against it. The law of nature was undoubtedly the primary rule to follow. For a landscape architect, nature suggested the ideal type of beauty; for a botanist, nature revealed a complex system of structure and economy; for a horticulturist, nature was the greatest hybridizer; and for a forester, nature's process of self-succession guided his practice.²⁸

Landscape architects and such theoretical guides as Van Rensselaer expressed this admiration of nature in the most direct and clear way. Nature in many ways was their master, supplying the materials they could work on, showing the models they could

²⁷ Editorial, "The Love of Nature," *G&F*, 4 May 1892, 205.

²⁸ Harrison, "Correspondence: Forests and Civilization;" *G&F*, 17 July 1889, 345.

imitate, motivating their passion for creation, striking their artful imagination, and working with them to fulfill the ultimate aesthetic and spiritual goal. Nature, after all, was the most original source of their art and of all genres of art. Charles Eliot stated that “love of beauty and of art must surely die if it be cut at its roots by destroying or vulgarizing the beauty of nature.” The magazine complained that the means of subjugating nature in the United States had taken “needless cruelty.” Once the Americans thoroughly “learn the great lesson that the highest art is found in following suggestions of nature, an endless variety of climate and of season awaits our effort, and with an untold wealth of native plants America should have the most effective and diversified gardens in the world.”²⁹

Although nature’s beauty was infinite, nature’s inspiration was inexhaustible, and nature’s offer was bountiful, nature had her restraints on artists and their works. In the analysis of the relationship between art and nature, the editor wrote that “the artist in landscape must consent, at any given place, to do what Nature then and there prescribes, or, at least, permits. To try to wipe out her work is futile; to try to conceal its character and supply a new one can result merely in an abortion which is admirable neither to the genuine lover of Nature nor the genuine lover of Art.” In her series of essays on the definition of landscape gardening, Van Rensselaer wrote that nature had done many things that a landscape architect could not do--“from the building of mountains and the spreading of seas to the perfecting of those ‘particulars’ which turn the keenest chisel and blunt the subtilest brush--to the curling

²⁹ Charles Eliot, “The Coast of Maine,” *G&F*, 5 March 1890, 86; Editorial, “Horticulture in England and America,” *G&F*, 11 July 1894, 271.

of a fern-frond and the veining of a rose.” The artist must not reject or completely change the frame that nature furnished. When asked to give advice on designing a specific place, the contributors always answered that they could only provide the fundamental rule: acquire the knowledge of the place, its landscape, the type of its soil, climate, plantation, and even its history and legends, as adequately as possible before the work started. Only when an artist knew how to wisely use the resources of nature and work within the scheme of nature, could he truly integrate his art with this fertile and endless force.³⁰

Besides the reverence shown by these artists, the contributors of *G&F* vehemently criticized human’s blindness and arrogance toward nature. Their discussion of the relationship between irrigation and the vegetation of the arid West expressed their general perspective on this issue. Like most of their contemporaries, Sargent, Stiles, J.B. Harrison, and other major contributors of the magazine believed that the West needed to be improved and utilized. They also dreamed that “some time the day may come when it will be said: There is no desert! The encouragement of irrigation will hasten that day for our country.” But they defied two prevalent views about the Great Plains and the Pacific West. First, they doubted that there had been an increase of rainfall on the Great Plain since the coming of white settlers. The magazine applied Henry Gannett’s argument that the increase of rainfall after the coming of the plow was a fantasy woven by the white farmers and the West boosters. The editor pointed out that “here are conditions which no action of man can influence.” Rainfall did not

³⁰ Editorial, “Art and Nature,” *G&F*, 4 July 1894, 261; Van Rensselaer, “Landscape Gardening: A Definition, II,” *G&F*, 7 March 1888, 14.

increase, the natural West was doomed to be arid, and only artificial irrigation could turn this semi-desert into a garden.³¹

Another and even more upsetting question was whether man-made storage reservoirs could ever replace the natural one, the forests. The answer again was no. Even though *G&F* echoed the common faith in the transforming power of irrigation, they maintained their awe of nature. In the summer of 1889, the news about the disaster caused by the collapse of a dam and a fatal flood in Conemaugh Valley, Johnstown, Pennsylvania, came to the editors of the magazine. They were astonished, but what made them more uneasy was the fact that the federal government was determined to continue the survey led by Major John W. Powell in the arid lands and proposed to build more dangerous dams and reservoirs in the mountains of the West.

According to Powell, all forests should be cut away where the western rivers took their rise so that the water would flow into the dams instead of soaking into the ground. The magazine, however, questioned the capability of such artificial constructions to impede the wild and destructive torrents. And it further challenged the power of modern technologies to prevail against the unbridled force of nature. It is worth quoting this whole paragraph for its warning and advice are valid even in our own day:

It is also to be observed that the splendor of the achievements of inventive and mechanical genius during our own time, seems to justify the most daring and audacious

³¹ Editorial, "The Arid West and Irrigation," *G&F*, 25 July 1888, 253; "Rainfall on the Great Plain," *G&F*, 4 April 1888, 62. In the editorial "Rainfall on the Great Plain," although the editor realized the ridicule of west heroic story about the increase of the rainfall, they still held over-confidence of the power of the plough and human in general. They thought that "cultivation adds to the value of the rainfall." The carpet of native grasses could slightly prevent rainfall from flowing away. By breaking up the soil and covering the ground with crops, more moisture would be retained.

expectations for the future, and it is not wonderful that men should imagine that nature imposes no limitations which may not be removed or overcome. Some influential engineers in this country think so highly of their profession and its work that they even propose to disregard and reject the natural provision for guarding the sources and flow of rivers, and to substitute for the mountain forests, which are the natural storage reservoirs, a system of artificial storage reservoirs constructed with walls, dams, and embankments. If this method is ever tried it will result in frequent and ruinous catastrophes.³²

In the same issue, J.B. Harrison responded to the event in the same tone. “There is no reason,” he wrote, “to suppose that engineering ability will ever enable us to dispense with the natural function of mountain forests in storing water and regulating its flow.” In 1890, another shocking disaster happened. The boasted masterpiece of modern engineering, Walnut Grove Dam in Arizona, burst under the pressure of flood. More lives suffered and more prosperity was lost. The editors asked why their fellow Americans had this drive to build artificial works which were obviously less safe and less effective than forests, the one furnished by nature itself in the war against another force of nature.³³

In the confident and haughty Victorian age, this voice somehow was aberrant and discordant. Compared to their contemporaries, *G&F* stood for a more humble and alert response to the force of nature. But this did not mean that their general view of nature was biocentric. In fact, human welfare and advancement consistently occupied the center of their concern. They did love nature, because the latter’s beauty could please their eyes and calm their weary spirit. They did admire nature, because the

³² Editorial, “The Influence of Mountain Forests,” *G&F*, 2 January 1889, 1; “The Danger from Mountain Reservoirs,” *G&F*, 19 June 1889, 289; “Mountain Reservoirs and Irrigation,” *G&F*, 3 July 1889, 313.

³³ Editorial, “Mountain Reservoirs and Irrigation,” *G&F*, 3 July 1889, 313; “The Bursting of the Walnut Grove Dam,” *G&F*, 5 March 1890, 110; “Mountain Forests and Mountain Stream,” *G&F*, 9 December 1891, 577.

latter's force could either encourage or halt the progress of their civilization. Despite the inner contradictions between the beauty-oriented view and the utility-based idea, these two attitudes merged in an anthropocentric attitude towards the nonhuman world. It was the welfare of humans that most mattered to the magazine.

In an editorial on tree planting, the magazine firmly articulated this stand. "But the tree is not an end in itself. It does not exist for its own sake. It is valuable solely for its effect upon human health and human psychology, for its relations to the welfare of the men, women and children who see it." But why was it important to preserve forests? Apparently it was because forests were useful to human beings, whether as a place for people to restore health, find beauty, and enjoy peace and freedom, or as the source of fuel, furniture, and railroad ties. Thus, their love of nature was based on both its aesthetic and economic value. Their goal was to rectify and refine nature to make it fit human need in a better way.³⁴

The *G&F* editors wrote that "the notion that a true lover of nature is one who lets nature alone, is the feeblest of fallacies." They went on saying that human beings had been interfering with nature from the beginning of civilization, and "he [humanity] comes in conflict with her [nature's] tremendous forces; he cannot relax his vigor for a day or he will be overgrown." The preservation of the beauty of wilderness was necessary, and actions had to be taken as soon as possible. But the scope of this untamed beauty had to be limited, and it would be better to preserve that wildness not within the dwellings of human beings. The editor indicated in another editorial that

³⁴ Editorial, "Arbor Day Tree-planting," *G&F*, 23 January 1889, 37; Harrison, "Correspondence: Forests and Civilization," *G&F*, 17 July 1889, 345.

“there are very many beautiful spots on earth, but very few of them are beautiful in a way that fits them, untouched by art, for association with the homes of men. A primeval forest would be a priceless possession on some distant part of an estate; but to permit it to come up close to a splendid dwelling would be an offense against appropriateness and harmony, and therefore against beauty.” In her “Landscape Gardening: A Definition,” Van Rensselaer said that “a real taste” for natural beauty was “an appreciation of organized beauty.” Although in many different cases, she showed great interest in the more natural and original side of beauty, longing for “a sense of breadth, vastness, freedom and the spontaneous action of elemental forces” bestowed by the less cultivated beauty, she never doubted that an organized beauty under human control would be the most appropriate and harmonious form for human world.³⁵

To shape this appropriate beauty to human life and to make nature more efficient and productive, other unnatural forces had to be employed. Art and science, these two major means of bridging the human world with that of nature, were also the ways to “mend” nature. No matter how moderate people should be when they were applying art and science, according to *G&F*, the forces of them were indispensable in constructing an “ideal nature.”

William Buckhout wrote in 1890 that “it will not be wise to leave the work of restoration wholly in the hands of nature,” because the species nature selected to

³⁵Editorial, “Sentimentalism and Tree-felling,” *G&F*, 26 July 1893, 311; “Natural Beauty and the Landscape Gardener,” *G&F*, 5 December 1888, 481; Van Rensselaer, “Landscape Gardening,” *G&F*, 4 April 1888, 63; “A Glimpse of Nantucket,” *G&F*, 14 November 1888, 447.

recover the land might not be the one humans needed. Also, forests without the aid of human managers were vulnerable to any sorts of attacks from humans or nature. Buckhout indicated, in another essay, that nature's self-restoration was ineffective. The forest expert Bernhard Fernow's words were even more frank. Because "nature has taken no account of time or space" or the timber composing the forests, it was relevant to instill economy into "the use of our inheritance," in order to "to make the soil do full duty in producing only that which is useful to man." In forestry, "protection standing alone is irrational and incomplete." On this issue, the editors and the contributors of magazine maintained a coherent voice. In an editorial on the timber-supply, the editors wrote that "it is a wasteful policy to allow them [forests] to struggle on without assistance, even in a region where trees will spring up of themselves whenever they have an opportunity, for skilled forest management means an increased production of improved material."³⁶

If science was the crucial factor to assist nature in forestry, art was also needed in shaping the beauty of nature. The central idea, "not to let nature alone," was followed here too. As in the reproduction and restoration of forests, the contributors saw many defects of nature weakening its reputed beauty. In many cases, nature's beauty was scattered and fragmentary, so it was the artist's job to gather these points of beauty and transform them into a "composed" picture. Mutation and decay were the other

³⁶ William Buckhout, "The Forest: The Need of a Forest Policy in Pennsylvania," *G&F*, 19 February 1890, 93; "The Forest: Suggestions for Restoring Wasted Forests," *G&F*, 20 August 1890, 410; Fernow, "The Forest: Its Significance as a National Resource," *G&F*, 29 July 1891, 357; Pinchot, "The Forest: Forestry in Prussia," *G&F*, 17 August 1892, 393; Editorial, "The Timber-supply of the United States," *G&F*, 26 April 1893, 181.

blemishes of nature; art and science could work together to eliminate these unpleasant spots and lead to perfection.³⁷

Thinning a woodland was a good example to show the cooperation of art and science in shaping a regulated beautiful picture within nature. Judgment and taste were the two preliminary qualities for a person to have before thinning. The former came from the knowledge of trees, and the latter derived from the training of art. Nature could not be fully trusted. Although the law of “the survival of the fittest” was universal, the fittest was not necessarily the most beautiful. Thus, “do not spare the axe” was one of the most consistent slogans the magazine advanced. The timber men used their axe too much and the sentimental tree lovers did not use it at all. According to the contributors of the magazine, both behaviors were unhealthy and irrational. Thinning was a useful method not only applicable to forests, but also necessary and beneficial in gardens and parks. It was efficient to help people reach the goal they expected. “Man can intervene,” wrote the editors, “and by judicious and systematic thinning help the strong to destroy the weak more quickly and with less expenditure of vital force. Thick planting is but following the rule of nature, and thinning is only helping nature do what she does herself too slowly, and therefore too expensively. ...Of the implements required to produce a fine tree the axe is certainly the first and most important”³⁸

³⁷ Van Rensselaer, “Landscape Gardening: A Definition, I-VII,” *G&F*, 29 February-11 April 1888.

³⁸ B.S. Olmstead, “Which Is the Better Way,” *G&F*, 11 April 1888, 76; Editorial, “Sentimental Objections to Felling Trees, I & II,” *G&F*, 5 September 1888 and 17 October 1888, 325, 397-8; “Do not Spare the Axe,” *G&F*, 7 November 1888, 433; “The Judicious and Systematic Thinning of Trees,” *G&F*, 22 March 1889, 241.

What was a fine tree and what was a poor one? The standard was set by the human mind. In an 1893 editorial, the magazine stated that “nature is bountiful in prospects, bountiful in material for making them. Supreme as she is, man is her ruler, and, without him, her highest charm lacks significance, since his is the eye to see, and, therefore, it is his right to subject her to his fancy, and he seldom has more delightful employment than in producing harmony between her munificence and his own artistic needs.” These words gave a legitimate excuse for humans to put wild beauty under control and in better order too. For the contributors of *G&F*, art and science were needed everywhere, and the only question was to what degree they should be employed in an endeavor to transform nature.³⁹

In the last volume published in 1897, an editorial titled “Art and Nature in Landscape Gardening” insisted on this idea of human control. “It is this broad and catholic art,” it said, “which alone is satisfying everywhere, and which is just as useful in the preservation of the Yosemite Valley or the scenery of Niagara as it is in planning a pastoral park or the grounds about a country house.” In those preserved natural scenes, “proper planning and maintenance” should be applied to protect them from natural and human invasions and destructions. But again mere preservation was not the end. The preserved original beauty should be made to satisfy human eyes in a more comfortable way, and “skillful and reverent treatment” would add “new charm to every feature.” The editorial went on to state: “It will not be enough to let the trees alone in the Tulare Forest. It must be adapted to human convenience. Roads must be

³⁹Editorial, “The Key-note in Landscape-gardening,” *G&F*, 27 December 1893, 531; “Natural Beauty and the Landscape Gardener,” *G&F*, 5 December 1888, 481.

prepared and other arrangements made so that it can be seen, and seen by great numbers of visitors at all seasons, and to the best advantage always.” Although the work needed to adapt the shifting natural circumstance and process, and the human touch needed to be erased or hidden in the final product, the editors did not want to deny that the ultimate purpose in preserving this beauty was for the “use and enjoyment of the people of the United States.” In fact, this preservation was also rooted in the magazine’s confidence in civilization. Only when it was sure that the civilization was advanced and strong enough to contend with the force of nature, and when cities, towns, and villages were prosperous and improved enough not to be converted into wilderness, could the magazine and its contributors feel at ease to maintain the more deviant form of beauty in their organized civilized life.⁴⁰

The emergence of urban landscape gardens, the establishment of national parks, and the conservation of forest resources were all marks of the progress of civilization, and they had value “simply because they constitute a real and vital contribution to the sum of the forces by which human life is refined and strengthened, made more vital and interesting.” This force, or the force of nature, by its own, could not fulfill the achievement of civilization. Van Rensselaer cited Aristotle’s words: “Nature has the will but not the power to reach perfection.” Then she switched the order, saying it was equally true that “nature has the power but not the will.” Thus, it was up to man

⁴⁰Editorial, “Art and Nature in Landscape-gardening,” *G&F*, 19 May 1897, 192; “The Yosemite Valley,” *G&F*, 2 January 1889, 1; “The Preservation of Natural Scenery,” *G&F*, 28 March 1890, 257; “National Parks,” *G&F*, 6 August 1890, 377.

to “bend her will to his.” While learning from nature, Van Rensselaer said, human could also “liberate, assist, and direct that power.”⁴¹

But does nature really need liberation, assistance, and direction? Or do these actions actually impose shackles on the self-sustaining and self-sufficient system of nature? Depending on their philosophy and occupation, people will give completely opposite answers to those questions. The contributors of *G&F* with their anthropocentric view would say yes without any hesitation.

On the one hand, their idea of taking nature as their legitimate possession played a crucial role in shaping this anthropocentric view. Since nature and its products were merely the means to achieve prosperity for them and their descendants, they had reasons to take care of it, but at the same time they believed it was their right and duty to alter nature to make it better or more suitable for its owners. The editors of *G&F* actually attempted to spread and reinforce this concept of possession among their readers. Being aware of their ownership of the resources and beauty, the magazine believed, people would be more gentle and careful in their treatment of nature, but at the same time, they would never be able to escape the utilitarian shadow in their vision of nature.

The idea of claiming ownership of nature had its roots in Christianity. Despite Christian teaching that the human being is only a temporary manager designated by God, nature was regarded as a possession. That possession should beget profit, no matter in which form, for the sake of human being or their God. This idea is

⁴¹ Editorial, “Arbor Day Tree-planting,” *G&F*, 23 January 1889, 37; Van Rensselaer, “Landscape Gardening: A Definition,” *G&F*, 14 March 1888, 27.

fundamentally different from the traditional Chinese Daoist vision of nature -- “generating without possessing.”(sheng er bu you) Nature is not a creation but the creator which generates everything in the universe, but does not possess any of them. Being an independent and free system, nature functions in its sphere and does not exist or fall into ruin because of the changes occurring in human society. Mankind after all is only a part of this “grand transformation (da hua).” Fearing the alienation of human beings from nature, traditional Chinese philosophy tends to bring man into nature, to become “one” with it. From oneness comes the fulfillment of spirit and freedom. In contrast, the artists and intellectuals of *G&F* and many of their contemporaries tried to incorporate nature into the system of civilization so that the latter could achieve its ever lasting progress.⁴²

On the other hand, by regarding nature as a public possession, the magazine managed to connect nature with their belief in democracy. Representing the mainstream ideology of American society, their understanding of civilization was democratic, not authoritarian. They argued it was time for the public to realize that they had an obligation to conserve natural resource for their civilization and future generations. At the same time, both the rich and the poor had a right and capability to enjoy and appreciate natural beauty. Preserving the abundance and productivity of natural resources secured the economic foundation of American democracy, but the shared pleasure from natural beauty contained the true spirit of democracy.

⁴²Laozi, *Daodejing*; Xunzi, *Xunzi*.

In his series of correspondences on “Forests and Civilization” published from 1889 on, J.B. Harrison analyzed the relationship between the increasingly reproductive forest resource and the sustainability of civilization from different angles. He emphasized the relevance of this resource to public wealth and happiness. In the first article of this series, he quoted an entire letter from his mentor Charles E. Norton who exalted Harrison’s work on advocating the preservation of forest resources. In this letter, Norton insured Harrison that “all good men, all men who love their country and who desire that the democracy of America should set an example of rational, manly, intelligent and moral national life, must desire your success, as the agent of the American Forestry Congress, in the work which you have undertaken.”⁴³

Mere economic prosperity, however, could not embody the comprehensiveness and complicatedness of their ideal democracy. The truth of democracy also implied the general elevation of morality and the shared right of spiritual and aesthetic enjoyment. In his essay “Private Grounds and Enclosures in Cities and Towns,” Sylvester Baxter contrasted the ideas of building private grounds between Europe and the United States, and concluded that “in Europe the idea is that of seclusion; in the United States it is rather one of inclusion.” He further pointed out that this difference was partly due to the American idea of democracy—“an intuitive recognition of the fundamental fact of a democratic common wealth, that the individual is a portion of

⁴³ Harrison, “Correspondence: Forests and Civilization,” *G&F*, 10 July 1889, 333.

the public, to which he owes the duty of sharing, so far as he may, the enjoyment of the things of beauty that he may be privileged to possess.”⁴⁴

Conversely, this recognition of beauty as a “democratic common wealth” also strengthened democracy itself. Thousands big and small parks, both urban and wild, came into being during this time period. *G&F*, from the beginning of its publication to the end, defended the right of the public’s access to all places of natural beauty and affirmed their ability of appreciating nature as well. It was the magazine’s faith that only when people had been given free opportunities to achieve the equality of intellectual and aesthetic capability could democracy truly blossom.

In this dramatically changing society, the contributors of *G&F* intended to redefine nature’s position in an urban industrial age. They aspired to an advanced level of “civilization” as a social goal. Such an aspiration required a new understanding of nature, they thought—not hostility or exploitation, but a new kind of integration. For the first time, they brought nature—not simply its resources but its beauty—into a public sphere, breaking down the wall between nature and civilization, melting the common Americans’ apathy toward nature, and meanwhile introducing them to the beauty previously confined to elites. This new position given to nature in a civilized society can be explained by the peculiar American cultural soil which combined Romantic aesthetic sentiment, the Victorian scientific faith, and the unique progressive public spirit.

⁴⁴ Baxter, “Private Grounds and Enclosures in Cities and Towns, I,” *G&F*, 10 December 1890, 594.

Chapter 5

Urban Civilization: An Integrated Landscape

Nine years after *G&F* ceased its publication, in 1906, the National Playground Association of America was founded in New York City by a group of progressive reformers. The next year, 200 “playmates” from thirty cities held the first annual conference of the Association in the South Park section of Chicago—the work of Frederick Law Olmsted and his colleagues. In this festival, speeches were given by the passionate advocates of the so called play-spirit and its social function, which included Luther H. Gulick’s “Play and Democracy,” Joseph Lee’s “Play as a School of the Citizen,” and Jane Addams’s “Public Recreation of Social Morality.” For a reader of *G&F*, many terms occurring in these speeches sounded familiar: urbanization and industrialization, cities and open-space, democracy and public-good, morality and vice. But a crucial word that was critical to the fundamental ideal of an urban society in *G&F* was missing in these speeches—the word “nature.”

In a speech titled “Health, Morality and the Playground,” Elmer E. Brown, a United States commissioner of education, claimed that “the part of the modern park system which most appeals to him [the child], and ought to appeal to him, is the part which give him a chance to do something. For any real lover of human nature—boy and girl nature—the most beautiful thing of all in our public parks today is lot of children hard at play where there is room to play and nobody cares whether the grass

grows or not.” But the truth is there were people caring whether the grass could grow or not. The contributors of *G&F* devoted their words and practice to encouraging the growth of grass, flowers, and trees in an urban environment.¹

Being a product of urbanization, *G&F* emerged during the decades when the nation rapidly moved into a new stage, and was engaged in curing the problems fermented in this transition. Sitting in the editorial office of *G&F* situated in Room 107, Tribune Building, Lower Manhattan, William Stiles witnessed the changes taking place in this one of the most populated spots in the world. From 1888 to 1897, towering buildings piled up, railroads went farther into the countryside, and nature faded. The City Hall Park around him shrank because of the building of a post office, and the Battery Park near him was intruded on by a railway corporation. In its pages, the magazine loyally recorded the changes, impacts, and ideas generated by urbanization, but the value of the magazine went beyond this. The more inspiring part of the magazine for a modern reader was how it interpreted the relationship between nature and cities.

Many of the magazine’s contributors were new professionals from East Coast cities. They were living in cities, and their career was closely related to both cities and nature. For many of them, especially such landscape architects and their defenders as Frederick Olmsted, Charles Eliot, William Stiles and Mariana Van Rensselaer, the United States in the late 19th century was not over-civilized but under-civilized, because in the evolution of its urban society, nature had been neglected or at

¹ Elmer E. Brown, “Health Morality and the Playground,” *Proceedings of the Playground Association of America*, 1 (August 1907): 30.

least not been paid enough attention. Civilization, in another words, incorporated not only industrial development, material prosperity, scientific progress, democracy, art, literature, morality, all these entities belonging to or created by human beings, but also the abundance of natural resources, the preservation of natural beauty (in cities and in more remote places), and an order and sustainability fulfilled in the co-existence and co-operation of nature and humanity. Cities, being the most appropriate symbol of modern civilization, should be an integrated landscape containing all the elements for a full human life, including nature.

What made the contributors of *G&F* distinct from the other progressive social reformers, such as the playground spokesmen, was their call for nature's continuing presence. Nature had no place in the playground advocates' social design in which human beings were the only concern and the central force. But for the editors and contributors of *G&F*, a truly civilized urban society required and could only be built upon a harmony between man and nature. Without nature, the outer environment of the society would be barren and the inner sphere of the human soul bleak. This comprehension was shaped by their fascination with the beauty of nature, their respect for the power of nature, and also their belief in a universal and intuitive thirst for nature during the ongoing process of urbanization.

The contributors of the magazine were aware of the prevalent nostalgia for rusticity, "the growing taste for rural life," in America. "Back to Nature" was a vogue among the urban middle class in the last quarter of the 19th century. *G&F*, on the one hand, represented this popular urban mood; on the other hand, it encouraged and also

tried to lead this mood in the direction they believed more proper for urban civilization. There is no doubt that many of its contributors also cherished this nostalgia. The simple life, the pure virtue, the direct contact with soil, all the aspects which characterized a rural age, were haunting their thoughts, but their concern was not confined to the sentimental complex; instead, it reached a more practical realm.

They were not only nature writers, but also professionals in their own fields, leading and participating in the new trend of city designing. Nature was not a memory they should dig up by looking backward, but an entity, tangible and useful, for the present and the future. In their social design, they unavoidably applied some of the rural ethics and behaviors to purify the evils of cities, but the vanishing rural society was not the model they intended to follow. Quite different from traditional agrarians, they claimed that:

Now, it is a narrow view which looks upon this rapid growth and increasing importance of urban communities as an unmixed evil. Sanitary science has made life in the town more healthful than it was in the early decades of the century, and more complete organization has multiplied its comforts. If there has been an apparent decline in the social and political importance of some rural communities, the towns have gained what the country has lost.

Filled with faith in science and education, and confidence in professionalism and expertise, *G&F* hoped to realize a modern civilized city, not to resume a lost rural paradise, although in both spheres, nature occupied a pivotal position.²

In this urban context, however, nature was more tamed and organized. It was rescued from chaos and other unpredictable elements, and was rationalized and in some way, humanized, to meet the physical and aesthetic desire of urban inhabitants.

² Editorial, "The Decline of the Country Gentleman," *G&F*, 13 May 1891, 217.

Furthermore, the contributors of *G&F* believed that cities were not the end point of this integrated landscape. While incorporating nature with urban environment and life, they also tried to extend the scope of this new civilization. This integrated landscape, according to *G&F*, could release a dual impact—vitalizing urban civilization, at the same time bringing places other than cities into the civilized orbit. Thus, the central question of this chapter is: how did *G&F* try to realize this integrated landscape? To answer this question, the chapter asks: What was an ideal physical urban environment in the eyes of the magazine? What was the fundamental function of urban parks and the relationship between them and urban civilization? How did *G&F* try to shape a public vision of nature and its relationship with cities? And finally, how did *G&F* apply the urban concept of nature to transform the nonurban hinterland?

“Improvement” was a master theme in progressive America, but it was construed in different ways. Like many of the contemporary intellectuals, the contributors of *G&F* believed that it was necessary to improve the urban environment in different dimensions. Many of their interests were identical to most progressive reformers, such as propelling economic progress, constructing sewer and other sanitary systems, establishing schools, hospitals, museums, and other functional public services. Besides the common interpretation of “improvement,” *G&F* made serious criticism of the artificial urban environment composed of steel and concrete. “There is a passion for ‘improving’ vacant land,” said the editors, “and the only known way to improve it is to cover it up with some construction. The time has not arrived when the people of the city realize that open spaces are quite as essential to health and comfort as solid

blocks of buildings or they would never consent to see their property destroyed in this way.” In their magazine, the contributors strived to enlighten their readers with the new concept of “improvement” in cities.³

Embracing this vision of “improvement,” the magazine portrayed a comprehensive picture of an ideal urban environment. The comprehensiveness consisted of two aspects: one referred to the spheres of their concern, from a single family’s inside and outside environment to a street and a park, and finally to a metropolis; and the other one dealt with the subjects living in the environment who included all social groups. The former engaged their professional identities as landscape architects or horticulturists, and the latter indicated their social and political commitment to democracy. They pointed out that “there is no longer any need of argument to prove that ample and convenient open spaces for public resort and recreation are essential not only to the pleasure and comfort, but to the physical health and the mental and moral growth of the people. This is universally admitted.” Based on this assumption, *G&F* devoted its attention to the landscape where people were living—people “whose lives must be passed in the noise and confusion and rectangular ugliness which seem to be the essential conditions of life in thickly crowded cities.” Therefore, in this comprehensive design, their ideal was to build gardens at every corner of a city so that all urban dwellers could get access to nature.⁴

³ Editorial, “The Confiscation of Parks,” *G&F*, 15 March 1889, 229.

⁴ Editorial, “Parks for Growing Cities,” *G&F*, 10 February 1892, 61; Editorial, “Park Work near Boston,” *G&F*, 29 April 1896, 171.

The garden they were interested in was an inclusive concept which existed in different forms. A working class family could own a garden confined to a narrow window, and an entire metropolis could also be altered into a grand garden. For the contributors of *G&F*, these gardens exerted a variable influence on the city population, but they all displayed some charm of nature and connected nature with urban people's life. Furthermore, these gardens were also a vehicle for them to accomplish their social ideal.

The most elementary and modest form of garden *G&F* discussed was home gardens owned by poor families. Many of them could hardly be called gardens, but consisted merely of several pots of plants on window sills or roofs. Too simple to attract much attention, home gardens actually rendered urban dwellers the most direct and economical contact with nature, which was why floriculture and horticulture occupied one of the most significant positions of the magazine. The landscape architects writing for *G&F* were not particularly intrigued by this type of garden, but it caught up the concern of another salient group of contributors who were mainly horticulturists, nurserymen, and florists. Their work was not to re-arrange scattered plants in order to compose a big picture, as landscape architects did, but to study plants themselves, making their form, color, and fragrance more variable and pleasant. In some way, these home-plant owners were their customers whose interest in those individual objects made their career meaningful and their business profitable. But at the same time, this group of contributors found themselves carrying the same social

duty as many other contributors of *G&F* did, trying to set up nature in city people's daily life.

The major contribution of horticulturists, nurserymen, and florists in *G&F* were concentrated in the "cultural department." They were writing not only for professional horticulturists but also for amateurs, not only for huge conservatories, but also for tiny window gardens. The species they discussed covered not only expensive and delicate ones like orchids, but also many humble and affordable flowers, such as rhododendron, chrysanthemum, and begonia, for they believed that growing these sorts of flowers would bring no economic cost but only pleasure and beauty to a poor family. In the spirit of an editorial on the value of water lilies, they attempted to spread the plants "for the poor as well as for the rich," the plants which were "within the reach of any one who can afford a tub of water and apiece of sunny ground large enough to hold it."⁵

From the outset to the end of its publication, *G&F* maintained a consistent attitude toward home plants. They did not deny the charm of cut flowers and pointed out that it was a positive fashion to love and display cut flowers. But between cut flowers and living home plants, they appreciated the latter more. In the first issue of the magazine, Peter Henderson compared the development of floriculture in America and in Europe and noted that America was using more cut flowers for decoration than any other nation, while it was far less common to find living plants in windows or back-yards in American cities than in Europe. Nevertheless, he concluded optimistically that

⁵Editorial, "Water Lilies," *G&F*, 18 July 1888, 241.

“beneath these flitting fancies is the substantial and unchanging love of flowers that seems to be an original instinct in man, and one that grows in strength with growing refinement.” Several weeks later, an editorial brought up the same topic and repeated the encouragement for growing living plants at home. The editor said that “not the most splendid bunch of Roses is more lovely than a fine Azalea in full flower.” It was not wrong to love cut flowers, yet the “almost exclusive preference for them instead of for flowering plants is a misfortune, especially to persons of modest means, who, by a different expenditure of their money, might buy more lasting pleasures.”⁶

Their fondness for living plants originated from their acquaintance with nature and their faith in public good. E. P. Powell, a frequent contributor on pomology, wrote an essay entitled “Housetop Gardens,” which accurately expressed the magazine’s view on this subject. He stated that in the process of urbanization, America had paid more attention to “the glory of increasing the size of cities” than to the “increase of their attendant comforts.” He asserted that “economy and health and pleasure can all be combined in roof gardening.” The suburbs were not in need of it, but the tenement houses could be turned into a much more desirable place by it. Contrasted to cut flowers, the growing things conveyed some information of the vitality of nature. As Powell said, that “the most practicable immediate use of the roof garden is for the families of professional men and others who long for some contact with growing things, a bit of nature, wild or tame, all to themselves.”⁷

⁶ Peter Henderson, “Floriculture in the United States,” *G&F*, 29 February 1888, 2-3; Editorial, “Cut Flowers and Growing Plants,” *G&F*, 2 May 1888, 110.

⁷ E.P. Powell, “Housetop Gardens,” *G&F*, 16 March 1892, 125-6.

At the time when the magazine tried to convince poor families to have their growing plants, it also wanted to persuade middle and upper-middle class families to decorate their houses with the same thing. In another issue published in 1888, the editors contrasted the life models of Europe and America. They said that while rich Englishmen came to town during summer, wealthy Americans ran to the countryside. Thus, the rich American felt no need to be concerned about the living environment in cities during the summer season, and was “drawing down his blinds, boarding up his front-door, and doing his best to give the city the aspect of a plague-stricken, abandoned place.” The editors asked “Why We Do Not Buy Growing Plants”? This was almost a moral issue in their view, for “if every absent householder spent this little, how great would be the increase of pleasure for the multitudes of weary spirits to whom a week's outing must represent a summer vacation.”⁸

The vision of the magazine, however, penetrated the windows and backyards of private houses and took in a much broader picture. Their ultimate goal was to make nature omnipresent in American cities. In an editorial which discussed the movement for establishing a state board of trustees to acquire open spaces for public use in Massachusetts, which was initiated by the Appalachian Mountain Club, the editors indicated that their nation was “rapidly becoming a land of cities and towns,” so the need for nature became “more imperative.” The preservation of natural scenery would “reflect the taste and civilization of the people of the state.” They advocated that “the movement should be made broad enough from the beginning to include and enlist all

⁸ Editorial, “Why We Do Not Buy Growing Plants,” *G&F*, 9 May 1888, 121-122.

who appreciate out-of-door interests and objects of any kind, the preservation of natural scenery, the care of trees, forests and wooded lands, and of fish and game preserves, the purity of the water-supply for cities and towns, the treatment of roadsides, and of mountain and sea-shore commons and public parks and open spaces.” This long list also showed the magazine’s own concerns. Streets, stations, school grounds, cemeteries, and parks, all of these public domains were involved in their design. They urged that “every city should plant its own trees as much as it should pave its own streets.” They wanted the railroad stations to show “a truer appreciation of what is most beautiful in gardening.” They called for “a much needed reform in the treatment of school-grounds throughout the country,” and they hailed their cemetery as “a simple, peaceful place in which a natural, rather than an artificial, type of beauty has been secured.” Among all the public places, what made the magazine concerned the most was urban parks.⁹

If trees, shrubs, and flowers were only supplemental decorations to streets, cemeteries, and other human created entities, they were the leading objects in urban parks which were brought into being due to the flourishing and blossoming of the non-human world. On the surface, urban parks were standing as an antithesis of cities. Their curvy flowing lines softened the gridiron portrayed on the urban landscape, their broad open space broke the constraints of the rectangular enclosure, their fresh and dynamic air animated the monotonous and strangled life, and their rural scenery

⁹Editorial, “Preserving Natural Scenery,” *G&F*, 2 July 1890, 317; “Street-trees,” *G&F*, 5 June 1895, 221; “The Railroad in Horticulture,” *G&F*, 13 March 1889, 121; “The Improvement of School Ground,” *G&F*, 16 May 1888, 133; “Good Taste in Our Cemeteries,” *G&F*, 1 June 1892, 253.

recalled some sentiment and virtue lost in the smoke and dust of an urban age. Urban parks represented the freedom that urbanization stifled, the instinct it blunted, the beauty it encroached, and the contemplation it destroyed. *G&F* argued that “the primary purpose of a rural park within reach of a great city is to furnish that rest and refreshment of mind and body which come from the tranquilizing influence of contact with natural scenery.”¹⁰

For ten years, this magazine maintained the same tone on urban parks, fought against all sorts of invasion, and struggled to make their fellow Americans understand the true meaning and function of urban parks. Sometimes, the editors even apologized for repeating their words too many times, but the sad truth behind their apology was that the threat they feared never ceased. If it was easy for them to gain public sympathy by condemning big business’s interest in acquiring the land of urban parks, they were, to some extent, powerless and isolated in their campaign against the other progressive reformers who claimed the same social commitment as they did: the public good. The dispute between the playground boosters and *G&F*—the park advocates—illustrated this contradiction.

When the playground movement emerged in the 1880s, its leaders collaborated with the advocates of the park movement, fighting for the legitimate establishment and enlargement of open-space in cities, for they were aware of the necessity of recreation for people living in a quick paced and tiring industrial life. During the accelerating process of urbanization, these elite intellectuals were not dazzled by the

¹⁰ Editorial, “The True Function of City Parks,” *G&F*, 7 July 1897, 261.

material prosperity, but reflected the deeper crisis rooted in urban civilization: slums, poverty, crimes, doldrums, and sick urban environment. They felt that despite the cultural and scientific advantages of cities, many urban residents were physically unhealthy, spiritually devastated, and morally deteriorating. Being progressive reformers, they shared similar social values and goals. In the blueprints of their social reforms, they placed the need and welfare of the public, especially the urban poor, prior to other items, and regarded a democratic urban society as the utmost aim. They believed that democracy, in the age of urbanization and industrialization, could be constantly strengthened and eventually fulfilled through elevating the physical circumstance and morality among all social classes.

But the commonality of their social view did not lead to a unanimous concept of urban parks. Along with the growth of urban population, it became increasingly difficult to acquire and secure open-space in cities; thus, both groups tried to define the primary function of these pieces of limited land, and in doing so revealed their differences. To the park advocates gathered by *G&F*, an urban park naturalized an artificial world and preserved an aesthetic existence in the weary grey daily life, so that urban inhabitants could gain physical benefit in healthy open-air and spiritual refreshment through contemplating of natural beauty. To the playground spokesmen, play was the motif of urban parks; thus, the major function of urban parks was to enclose abundant and safe space for adults and children to release their physical energy vigorously and freely. Tranquility and beauty implied in nature, argued the

playground fans, were middle and upper-middle class ideals imposed on ordinary factory workers and their kids.¹¹

In an editorial titled “Playgrounds and Parks,” published in 1894, the editors of *G&F* replied to the criticism made by the playground advocates and articulated their understanding of the meaning of an urban park. They claimed that that they had “pleaded in these columns for more children's playgrounds too often to be accused of not recognizing their value to the community.” But they did not think these playgrounds should be made at the expense of scenery parks for the latter was the only entity which could serve “the purpose of refreshment, of renewal of life and strength for body and soul alike.” They pointed out that the truer and broader sense of recreation was exposed when the word was written as “re-creation.” Thus, they argued that “the truest value of public pleasure-grounds for large cities is in the rest they give to eyes and mind, to heart and soul, through the soothing charm, the fresh and inspiring influence, the impersonal, unexciting pleasure which nothing but the works of Nature offer to man.” To gain this re-creation, natural beauty was the crucial element because it was appealing to the soul of humans.¹²

Later, in the same volume, another editorial took the famous sign “Keep off the Grass” as its title, and reiterated the magazine’s concern for natural beauty in city parks. To answer the complaint that the sign of “Keep off the Grass” restricted the

¹¹ Peter Schmitt discusses the discrepancy between these two groups, and argues that the playground psychologists’ redefinition of parks changed the concept of urban parks: “Play was no longer a means of exercise but an end in itself, a science conforming to the needs of an urban culture. The rural image of informal outdoor exercise gave way to an urban ideal for town and country alike.” Peter Schmitt, “Keep off the Grass,” *Back to Nature*, 75.

¹² Editorial, “Playgrounds and Parks,” *G&F*, 6 June 1894, 221-2.

freedom of people to use urban parks, the editorial noted that the sign would be “necessary if the parks are to retain that tender and restful beauty which gives them their supreme value.” An editorial, “The Defacement of City Parks,” published in 1895, illuminated a more radical criticism of these park defenders. From the editors’ lamentation that “if public opinion has become so demoralized in any city that proper regulations for maintaining the landscape beauty of their parks are denounced as tyrannous, such parks are doomed to desolation,” it is not difficult to tell that the gap between the park and the playground advocates had become deeper and wider. Once again, the magazine tried to arouse the public’s sentiment for natural beauty and their recognition of its indispensability in an urban environment. Facing the argument that “the parks are made to use and not to look at,” the magazine argued that “the beauty of a park is its highest use, and, therefore, to destroy that beauty is not to use but to abuse it.”¹³

In an effort to protect Central Park from the construction of a botanical exhibition and a zoo, the editors of the journal wrote: “We frankly say that we would rather never to see it established than see the Central Park—that great monument to American art and priceless pleasure—ground of the poor—curtailed and ruined for its sake or for the sake of any other scientific or political or money-making scheme.” No other demand should be allowed into these refuges, because parks were built to “meet

¹³ Editorial, “Keep off the Grass,” *G&F*, 25 July 1894, 291; “The Defacement of City Parks,” *G&F*, 12 June 1895, 231-2.

the elementary wants of the human soul by men who have a reverent love for nature.”¹⁴

In June 1897, *G&F* published an editorial entitled “Natural Beauty in Urban Parks,” in which the editors summarized all their efforts in defending urban parks in the last ten years. Within another four months, Stiles’ life came to an end, and two months later, the magazine ceased publication. It is worth quoting this long statement:

When we consider the almost universal admiration and even affection among civilized men and women for broad natural landscapes, for "scenery as distinct from scenes," and consider its special restoring effect upon those who suffer from the nervous strain of city life, we have the one justifying reason for large urban parks. Small parks and playgrounds, formal squares, plazas and promenades are all valuable for other purposes, but for the highest rest and refreshment nothing will fill the place of stretches of beautiful natural scenery. Artificiality, the needless intrusion of buildings, anything which interferes with seclusion and the actual contact and communion with pure nature, defeats to some extent the highest purpose of such parks. The idea should never be harbored that rural parks can be improved by buildings however noble, by any work of art which is not entirely in harmony with the spirit of the scene, or by so-called decorative gardening, however choice and rare the plants employed.¹⁵

With all their natural beauty, urban parks, or more generally speaking, gardens, however, suggested a dramatically different world from the original natural world or the real rural world. As discussed in the last chapter, the contributors of the magazine, on the one hand, were respectful of the laws of nature, on the other hand, believed that nature needed to be assisted by art and science to be more compatible to civilization. Thus, gardens, being highly organized and docile, would satiate urban people’s hunger for nature, but at the same time, did not present any repulsive or terrifying elements. At this point, these contributors were agreeing with other urban

¹⁴ Editorial, “A Proposed Invasion of Central Park,” *G&F*, 20 March 1889, 133; “Park Works near Boston,” *G&F*, 29 April 1896, 171.

¹⁵ Editorial, “Natural Beauty in Urban Parks,” *G&F*, 30 June 1897, 251.

sanitary reformers. While rejecting the detachment of nature from cities, they did not try to hang on to the traditional relationship between nature and cities with running pigs and heaping manure on streets. Historian Theodore Steinberg points out that “in the late nineteenth century, reformers bent on sanitation put an end to the city in its down-to-earth form.” So did the contributors of *G&F*. They wanted to have nature and its related elements under control for they existed for the sake of urban people’s physical and mental health.¹⁶

Therefore, urban parks resembled rural scenery on its surface, while the core of them was still urban and modern. Undoubtedly, the contributors of *G&F* exalted some rural virtues: simplicity, tranquility, and purity associated with its scenery. But they also defied in their parks some other elements identified with traditional rural life. Religion was one of them. The editors stated frankly that they did not want to turn the parks into a platform of any religion, including the Evangelical Alliance. They pointed out that “wandering sectarian preachers are none too gentle, as a rule, when they are characterizing other creeds than their own, and they can easily succeed in making themselves disagreeable. A large proportion of the working people who most need the park are Catholics, and why should they, for example, be forced to hear their faith attacked in their own pleasure-grounds?” Allowing religious preaching in urban parks, they argued, would be a “manifest injustice.” In another editorial, the

¹⁶Steinberg calls a city with nature presenting in this form an “organic city.” He argues that dirty as it is, it “had a certain social and environmental logic.” He further points out that “City dwellers and their animals were largely integrated into the regional soil cycle, supplying it with the nutrients for growing food that was then trucked back into town. Thus, did life proceed in the organic city, with vegetables and hay flowing one way and waste the other.” Theodore Steinberg, *Down to Earth: Nature’s Role in American History*, 159 (New York: Oxford Press, 2002).

editors wrote in a satiric tone that “religious enthusiasts are convinced that in some way the salvation of men depends upon their efforts, and that their exclusion from the public parks means practically the ruin of human souls.” The editors argued that it was nature, not the words from the Bible or other holy scripts, calming down the deep anxiety of urban life in parks. It was still a question whether religious preaching in urban parks could save the urban soul from evil, but it was certain that its intrusion would bring the ruin of a park.¹⁷

Their opposition to religious preaching in urban parks also suggested their challenge to another relevant common element of American rural virtue: individualism. They addressed the freedom brought by the vast meadow and unlimited sky of urban parks, but this freedom, emphasizing the spiritual and intellectual aspect, was by no means a self-sufficient individual life style. In an urban public park, restraint was important, which referred not only to the relationship among the visitors who were supposed to respect others’ behaviors and views, but also to the interaction between the human and non-human world. The sign “Keep off the Grass” best imparted this simple but always neglected truth: if people wanted to enjoy the beauty endowed by nature, they had to allow and encourage the existence of nature by restricting themselves.

Historian Donald Worster argues that the “linkage of freedom and restraint may be the most important feature of the wilderness movement,” from which people can learn “the virtue of restraint.” This argument is also applicable to the urban park

¹⁷ Editorial, “The Proper Use of Public Parks,” *G&F*, 25 September 1889, 457; “The Use of City Parks,” *G&F*, 29 July 1891, 349-50.

movement in which the park defenders asked people to realize the necessity of restraint for the growth of nature and also for the benefit of other people. The relationship between nature and humans in the rural-like parks was actually dramatically different from the one in real American rural life. The latter found the inevitability sometimes in fight and subjugation and sometimes in dependence and cooperation; the former saw the great need of responsibility and regulation. This new relationship contained the traditional pastoralist's ideal of balancing nature and culture; however, it was to be achieved by knowledge and discipline obtained in an urban context.¹⁸

In fact, the contributors of *G&F* did not want to make urban parks stand lonely and erratically in the city landscape; instead, they believed that urban parks were an indispensable part of urban civilization and bore the ethos of the modern urban age. Repeatedly, they made an argument like this: "public parks are quite as essential to the health and comfort and morals of the city as a pure water-supply or a good system of sewage, and ... a civilized community can no more flourish without them than without hospitals, libraries, museums, colleges and churches." Urban parks, like the other civil and public agencies, were incorporated in the sophisticated web of urban civilization. The goal of the contributors of the magazine was to liberate the park landscape from the boundaries of the park itself, and extend its dimension and imagination to the city in general.¹⁹

¹⁸ Donald Worster, "The Wilderness of History," *Wild Earth* 7, No. 3 (1997): 12-13.

¹⁹ Editorial, "Small Parks for New York," *G&F*, 5 June 1895, 222.

A metropolitan park system accomplished this goal. When individual parks inside the city and out in its hinterland were linked to each other and to people's life by parkways and public transportation, one could not separate them from the complex picture of urban civilization. Such a system, with its wide scope, ambitious construction, coordinated management, and diverse interest, could not have been built on rural soil. Only when the country entered an age with increasingly centralized power and wealth, and ever-advancing techniques, could such a design be accepted and come into being.

The Boston metropolitan park system, which pioneered the whole movement throughout the country, emerged in 1891 when "the first suggestion was made for a system of parks adequate to meet the needs of the great cluster of cities and towns that, with the city of Boston, forms practically one metropolitan community." The next year, a preliminary committee including Charles Eliot and Sylvester Baxter was appointed to draft the scheme of the system. In 1893, "the Legislature of Massachusetts passed an act which enabled the cities and towns surrounding Boston to cooperate with that city in securing open spaces for the use of the public." Its ambition was to build a park system in the Boston metropolitan district containing at the beginning 10,000 acres (today the size has grown to almost 20,000 acres) of open space for recreation and water-supply. Compounded with the existing Boston park system, the famous "emerald necklace" designed by Frederick Law Olmsted, the Boston Metropolitan park system covered not only more diverse landscapes, but also much broader spaces. As I analyzed in the third chapter, the advocates of this project

argued that since the boundaries of the park system was not confined to one city or one area, the system had to be managed by a commission composed of experts transcending any local interest.²⁰

According to the Metropolitan Park Commission report in 1895, later cited in *G&F*, the areas to be controlled by the comprised “the Blue Hills reservation, five miles long; the Middlesex Fells reservation, two miles square; Stony Brook reservation, two miles long; Charles River reservation, including the semi-public river-banks, five miles long; the Mystic Valley parkway, two miles long, and the Revere Beach reservation, three miles long.” New parks and parkways would be built and original natural scenes would be preserved on these areas. These sites would be connected with the populous centers of the district by “cheap and rapid means of transportation by electric cars” and by state parkways, which guaranteed the access for different classes with different interests and needs.²¹

G&F participated in and pushed forward this park movement from the very outset. In the next few years, the magazine reported the progress of its projects, summarized its lessons, and exalted its values. The leading figures of this movement were also the major contributors to the magazine who used the magazine as the major print medium linking their work with the public. The editors and contributors of the magazine also wanted to establish the movement in Boston as a model for other cities to emulate,

²⁰ Sylvester Baxter, “Boston's New Metropolitan Parks,” *G&F*, 17 January 1894, 22; Editorial, “The Metropolitan Parks of Boston,” *G&F*, 1 May 1895, 171.

²¹ Editorial, “Park Work near Boston,” *G&F*, 29 April 1896, 171; “The Park System of Greater Boston,” *G&F*, 23 June 1897, 241-2.

through which they could spread their understanding of the relationship between cities and nature and achieve their social goal.

Being devout progressives, their belief in public good never got lost in their work to preserve and construct urban parks. From the beginning of American park history, the park builders identified urban parks as a symbol of American democracy. Charles Eliot's words represented this unanimous view of the magazine: "The occasionally so pressing want of that quiet and peculiar refreshment which comes from contemplation of scenery—the want of which the rich satisfy by fleeing from town at certain seasons, but which the poor (who are trespassers in the country) can seldom fill—is only to be met by the country park." On the land of urban parks, they were dreaming of fulfilling social and environmental justice in their own way: not merely reducing working hours, increasing labor welfare, providing cleaner water and environment, spreading public education, but also admitting everyone's right and capability to enjoy nature and beauty. Like the magazine's own words about Andrew Jackson Downing, their faith was, "that rich and poor could breathe the same atmosphere of nature and of art and enjoy the same scenery without any jealousy or any conflict."²²

Naive? Maybe. In that period, everyone devoting himself to social reforms was naive at some level, and the contributors of *G&F* were not exceptional. But it was this naive social ideal that drove them to be engaged in the construction and protection of thousands of urban parks and other forms of urban gardens. Everyone in cities benefited from these parks and gardens in their daily life, but became so used to them

²² Charles Eliot, "Parks and Squares of United States Cities," *G&F*, 24 October 1888, 412; Editorial, "The Debt of America to A. J. Downing," *G&F*, 29 May 1895, 211.

that they took them for granted and even ignored them. This was why *G&F* lamented in its pages so many times that it was a pity that those men who were “striving to reduce the hours of labor” failed to discern that they were the ones who should “have an especial interest in saving the park from any intrusion that even remotely threatens to impair its efficiency, or limit its capacity, of furnishing recreation for themselves and their children.” The contributors of *G&F* felt themselves obligated to replant nature not only in the urban dweller’s physical environment, but also in their psychological realm.²³

The dull industrialized life and the grey urban environment squeezed nature not only out of urban inhabitants’ sight but also out of their heart. How to melt people’s indifference toward nature and promote their understanding of nature, was one of the major questions asked by *G&F*. The contributors of the magazine never doubted the instinct that everyone had for nature, and also trusted nature’s agency in improving people’s physical and mental health. But according to their observation, urban life alienated humans from nature, consequently making people forget their instinctual thirst for nature and its beauty. They not only intended to combine nature with the physical urban landscape, but also wanted to make nature permeate urban people’s daily lives and minds.

Being progressives, they were enthusiasts of education, firmly believing in the potency of education in recalling this instinct and enhancing it to a more aesthetic and spiritual level. Their educational means were diverse. As I analyzed in the second

²³Editorial, “The Proper Use of Public Parks,” *G&F*, 25 September 1889, 457-8.

chapter, the magazine itself was one of the major educational agencies, according to the editors. Besides the power of newspapers and magazines, *G&F* also promoted formal and systematic school education targeting mainly children, and the more random and imperceptible ways to educate the general public. In doing so, the magazine thought, not only could the natural environment they were preserving and constructing be secure, but also the entire urban civilization would be more refined and advanced.

Gardening was the primary educational means *G&F* advised for urban dwellers to apply in acquiring an intimate relationship between humans and nature. When America marched into its urban age, for most urban residents, the easiest access to soil was gardening, which made city people's contact with nature more direct through touching and producing, not limited to reading, seeing, and feeling. Historian Tamara P. Thornton points out that, in the antebellum period, horticulture developed from a hobby among gentlemen into a movement with flourishing organizations and periodicals. Characterized by its connection with rural life and virtue, horticulture, during this time period, was mainly applied to cure the upper class's moral ills: the materialism and boorishness created by greed and ambition. At the same time, horticulture was appealing to this class of people who thought that the art could calm down the "the spirit of unrest" (Andrew Jackson Downing's words) and make the nation more stable. After the Civil War, the advocates of horticulture switched their attention to lower classes: "the laboring classes" and the new immigrants, who were associated with many vices generated by poverty and their traditions. Thornton argues

that horticulture “was to function as an antidote to the moral failures” of these people, and the motivation of the horticulture projects “was a belief that horticulture taught republican virtues: hard work, thrift, and the sacrosanct worth of private property.” Gardening entered urban schools and was captured by progressive educators as an effective method. A school garden movement burgeoned, but meanwhile the gardening advocates did not neglect the educational impact of gardening on adults.²⁴

The contributors of *G&F*, as progressive reformers, also looked at gardening through the lens of its moral function. Influenced by the rooted agrarianism in America which believed in the pure virtue lying in simple and serene rural life, they suggested that gardening was effective in cleansing the deteriorating moral environment in cities. Writing about his visit to the annual Flower Show of the Westminster Society in London in 1882, which promoted gardening among the working class, F.D.W. French cited the words of Edwin Hodder that these flower shows’ “chief good was that in watching the growth and progress of the flowers under their care the children and their parents were brought into close contact with something pure and innocent and beautiful; something that should speak to the better part of their natures and tell them of Him who has made the earth beautiful and fair.” French concluded that it was relevant to encourage window gardening among poorer classes in America for many social benefits would come along with it.²⁵

²⁴Tamara Plakins Thornton, “Horticulture and American Character,” in *Keeping Eden: A History of Gardening in America*, ed. Walter, T. Punch, 200, 189 (Boston: Bulfinch Press, 1992).

²⁵F.D.W. French, “Window Gardening,” *G&F*, 18 July 1888, 243. The words he cited were from “Life of the Earl of Shaftesbury” by Edwin Hodder. According to him, the Earl of Shaftesbury was active in promoting gardening among working class in England.

But beyond this traditional agrarian understanding of gardening, the contributors of *G&F* also employed it to fill the social gap shaped by wealth and power. The social meaning of gardening became more complicated in *G&F* when it exemplified a form of social equality. Mary C. Robbins regarded gardening as “a common bond between the wise and the ignorant, a pursuit wherein men of different station can interchange roles and mutually impart knowledge.” “Beyond any question,” she wrote, “a more general devotion to gardening among Americans would help them to lead lives of greater serenity and sanity. They could afford to read fewer books and newspapers if they only learned these lessons of peace which come from contact with nature. It would be a solace to poor and rich.”²⁶

In this essay, Robbins also discussed why gardening was not as popular in America as in Europe. In her comparison of America and European countries, she complained that Americans lacked “a deep root in the soil,” which led to the deficiency of local attachment and a sense of responsibility. For the editors and contributors of *G&F*, gardening could help instill these sentiments that the typical American had not cherished. Gardening would “imbue him with a love for home, to anchor him to that one spot of the earth's surface which he calls his own, and to which he can impart some portion of his own individuality.” She believed that Americans needed this “stay and balance.” The sense of ownership would make them cherish the

²⁶Mary C. Robbins, “Gardening: A Good Outlet for American Vitality,” *G&F*, January 30, 1895, 42-4.

natural scenery they possessed and realize it was the truest wealth they should preserve for themselves and their descendants.²⁷

Furthermore, according to the contributors of *G&F*, gardening, combined with other programs of nature study, would encourage the scientific understanding of nature, and simultaneously arouse the profound love of nature. Many contributors of *G&F* were the early spokesmen of this education movement, and Liberty Hyde Bailey was the most distinguished among them. Historian Kevin Armitage argues that in the progressive period, nature study advocates, on the one hand, embraced scientific knowledge of nature acquired by the rational experimental methods, but on the other hand, endeavored to retain the personal ethical experience obtained from the intimate contact with nature. They tried to reconcile these two value systems in an age of modernity. For the contributors of *G&F*, the union of them also represented the harmonious existence of rural scenes in an urban landscape, and the reasonable thirst for nature among urban dwellers.²⁸

In *G&F*, contributors applied scientific discoveries to convince their readers that nature had a positive influence on their body so it was a biological instinct for people to crave nature. The magazine tried to remind people that the preservation of natural beauty in cities was not only for some sentimental consideration, but for “reasons based on the most substantial and practical truth,” which was saying that natural beauty with fresh air would insure people’s physical health. “It is asserted over and

²⁷ Ibid: 43; Editorial, “The Effect of Gardening upon the Mind,” *G&F*, 28 October 1891, 505.

²⁸ Kevin Armitage, “Knowing Nature: Nature Study and American Life, 1873-1923” (Ph.D. diss., Univ. of Kansas, 2005).

over again,” wrote the editors, “not only by poets and philosophers who give expression to the profoundest truths in our nature, but the curative value of natural scenery is distinctly recognized by the medical profession. All of us have felt the soothing and restful influence of natural beauty, acting in a subtle way through the very highest functions of our being, and tending to establish sound minds in sound bodies.” Partly because of this argument, the contributors of *G&F* believed that it was fair and rational to blur the boundaries among different social groups, making everyone breathe the same air and see the same view. After all, nature had the same biological impact on everyone.²⁹

This biological interaction with nature, however, was not the end. *G&F* also tried to have the accumulation of scientific knowledge strengthen the spiritual thirst for nature. As I analyzed in last chapter, *G&F* did not see a necessary confrontation between scientific investigation in nature and romantic love of nature. On the contrary, the magazine believed that they could complement each other and make both deeper and sounder. “From the knowledge thus gained,” argued by the editors, “and the interest aroused in the school-garden, we may reasonably look for a growing love of Nature—an increasing appreciation of the beauty of trees and their value.” This love of nature would enable them to better appreciate urban parks, while their knowledge of nature would allow them to observe nature in a more careful way so that they could find beauty from humble and familiar scenes. Based on this consideration, the contributor of the magazine regarded schools as the elementary and

²⁹Editorial, “Natural Beauty in Urban Parks,” *G&F*, 30 June 1897, 251.

one of the most important places for them to impart their perception of nature and its relationship with cities. Children, as the masters of the future, were crucial in the process of re-establishing a harmonious relationship between humans and nature. All they were doing, the contributors believed, was not only for this generation, but also for the coming generations.

But schools were not the only place where *G&F* tried to awaken the public's sympathy for nature. In fact, the parks and gardens they were advocating had a more immediate and visual educational function than any classroom. They pointed out that botanical and zoological gardens were an important part of "the educational equipment of a great metropolis," which could exert "a wonderful influence in developing and stimulating the intelligence of the public, not only by increasing the knowledge of plants and plant-geography, but of all that relates to horticulture and gardening." And urban parks also possessed "a great educational and moral as well as a sanitary influence in city life," where people could refine their artistic taste.³⁰

Organizations and society were other channels that they thought would be functional. The end of the 19th century was a time when diverse societies and organizations flourished. Almost every older state in America had its own horticulture and floriculture society, and many other groups dealing with nature or natural ideas came out at the same time. *G&F* saw the power of these societies in shaping public opinion and reported the activities of many of them. The magazine argued that only when people realized "how largely the public is dependent upon nurserymen,

³⁰Editorial, "A Botanic Garden for the City of New York," *G&F*, 26 December 1888, 518; "The Speedroad in Central Park," *G&F*, 30 March 1892, 145.

seedsmen and florists for instruction in practical horticulture,” could they understand the “public importance” of these societies and their meetings. Thus, in almost every issue, there was a general report on the meetings of such societies, and there were also special discussions on some actions these societies took.³¹

A good example was a women’s group called the “Linnean Club” in Jamaica Bay, located near the rapidly growing New York City, whose motivation was to diffuse botanical knowledge and preserve native flora. The action this club took later developed into the purchase of land to build a public park. The magazine highly praised these women’s enthusiasm for nature and their great “effectiveness of organization” and “promptness of execution,” and thought the Linnean Club was a model for women from other towns to follow. But more importantly, the magazine emphasized the educational goal this club pursued. The editors said cheerfully that “here is another hint of the value of organization for encouraging the study of nature out-of-doors and at firsthand. Such study is wholesome in a general way; it opens the mind to good influences, it draws away the thoughts from what is artificial and gives freer play to those elementary instincts which attach us to the soil and enable us to enjoy those simple pleasures which come from sympathetic contact with the woods and fields; it has a special value in creating and directing sentiment in favor of public parks and gardens for towns and cities.”³²

While the contributors and editors of the magazine were engaged to incorporating nature with urban people’s life and environment, they did not want the ideal of the

³¹ Editorial, “The Society of American Florists,” *G&F*, 22 August 1888, 301.

³² Editorial, “How a Village Gained a Park,” *G&F*, 25 November 1891, 553-4.

integrated landscape to end at the edge of metropolitan parks. The rural landscape, which inspired the look of urban parks, was also part of their design. Without it, their integrated landscape would never become as intact and comprehensive as they hoped. While they applied some rural qualities to reform their urban landscape, they also expected urban ideas and professionalism to change the rural landscape. But uniformity of country and city was not the outcome they were seeking. A true civilization, according to the magazine, did not mean obliterating the local identity deriving from history and the unique beauty shaped by nature

American farmers and agriculture went through the most radical and traumatic transition in the second half of the 19th century. As I analyzed in the first chapter, farmers struggled to reorient them in a new urban industrial society. Populism was the most profound and representative movement conveying the insecurity and anxiety farmers were experiencing in this period. Being a magazine that avoided most political and economic issues, *G&F* was not ready to judge populism and other rural radical movements, but this did not mean that the magazine was ignorant of what was going on in the countryside. From their urban perspective, they grasped the virtual union of rural and urban economy due to the advancement of science and technology, the expansion of markets, and most directly the accomplishment of the trans-continental railroads. With their deep interest in scientific agriculture and their sense of the inevitability of urbanization, the contributors of *G&F* did not see this incorporation as a completely negative development, though they had much sympathy for the farmers who had to suffer through the changes.

The magazine observed that the increase of wealth, population, and influence in cities came at the expense of rural communities. Feeling uneasy with the decline of farmers, the magazine raised a series of questions:

How can the conservative practices of Agriculture and Horticulture be adjusted to the swiftly changing conditions of this growing country? How is the farmer to command his fair share of the value of the products of the soil? What can be done to make country life more attractive, wholesome and satisfying? Is it possible to restore the tiller of the soil to the position of consequence he once held in the social and political life of the Republic?³³

Probably no one could give a perfect answer to all these questions, including *G&F*. But the magazine made very clear its mission to convert the countryside into an integrated civilized landscape, bringing city amenities to farmers while retaining the farmers' sentiments connecting them to land. The logic they followed here was the same as the one they used in constructing urban landscape: that the human being was capable of balancing the rational progress of science and economy and the romantic sentiment of nature and beauty. Or in Liberty Bailey's words in *The Holy Earth*: "It is possible to hoe potatoes and to hear the birds sing at the same time." A better civilization would come from this harmony.³⁴

In the publication prospectus, *G&F* announced that it would "cooperate with Village Improvement Societies and every other organized effort to secure the proper ordering and maintenance of parks and squares, cemeteries, railroad stations, school grounds and roadsides." Village improvement societies followed the first efforts at village improvement which appeared in Stockbridge, Massachusetts in 1853, and in the second half of the 19th century these societies could be found throughout New

³³ Editorial, "The Decline of the Country Gentleman," *G&F*, 13 May 1891, 217.

³⁴ Liberty Bailey, *The Holy Earth*, 51.

England and the rest of the Northeast. This movement, initiated by voluntary associations, was dedicated to improving the quality of life in the countryside and bettering the public setting of that life. Advocated by Andrew Jackson Downing, this movement from the beginning was intertwined with the park movement in cities. The former was engaged in transforming the rural landscape into a highly organized, picturesque landscape which served as the aesthetic and spiritual origin of the latter movement. Conversely, the latter, which was mainly an urban search, imparted the spirit of scientific and intellectual progress, such as the discovery of the connection between public health and clean water supply and fresh air, to its countryside cousin. Because of this communication, the scope of village improvement became more inclusive, emphasizing not only pretty village centers but also the need for a pure water supply and a good system of sewage removal, as the first requisite of the quality of life.³⁵

Richard Cloues indicates in his study of the movement that village improvement centered on promoting a local identity, celebrating the countryside as the foundation of American democracy and welfare. He argues that village improvement was superficially similar to the later civic improvement movement, but fundamentally differed from it in its conceptualization of villages and cities, underlying ideals, and attitude toward the middle landscape. According to Cloues, the civic improvement,

³⁵ In his dissertation "Where Art Is Combined with Nature: Village Improvement in Nineteenth-Century New England," Richard Ross Cloues argues that village improvement "paralleled but did not imitate nor derive" from the urban park movement. He notices the resemblance of these two movements, but does not pay enough attention to the mutual impact of the two. Richard Ross Cloues, "Where Art is Combined with Nature: Village Improvement in Nineteenth-Century New England" (Ph.D. diss., Univ. of Cornell, 1987), 82; Editorial, "The Improvement of Villages," *G&F*, 27 March 1889, 145.

emerging at the end of the 19th century, deemed villages and towns as smaller sized cities, glorified the city as “the source of social, economic, and cultural progress,” and abandoned the middle landscape as an ideal. It also differed from village improvement “in terms of its national perspective, its uniform standards, its professionalism, and its bureaucracy.” Cloues is right in arguing that the most basic difference between village improvement and civic improvement was that the former regarded villages as the ideal place to live, while the latter embraced cities as the new “paradise.”³⁶

Although Cloues discusses the articles written by Mary Caroline Robbins in *Atlantic Monthly* in the mid 1890s, he fails to fully analyze the connection between village improvement and civic improvement before the publication of *The Improvement of Towns and Cities* by Charles Mulford Robinson in 1901. The civic improvement movement had emerged a decade before the establishment of the National League of Improvement Association (at its first annual convention in 1901, its name was changed into the American League for Civic Improvement) and Robinson’s book. According to an editorial on “City Improvement Societies” published in *G&F* in 1890, this urban movement actually shared much with village improvement and emulated the latter. More importantly, though its major spokesman Robinson did not in his book refer to middle landscape—the more balanced landscape between extreme urbanism and utmost primitivism, civic improvement still got its aspiration from the concept of middle landscape, and never thoroughly abandoned the

³⁶ Cloues, “From ‘Village’ to ‘Civic’ Improvement,” Chap. 7 in “Where Art is Combined with Nature,” 1054-6.

enduring pastoralism. *G&F*, to a great extent, was the prelude of the civic improvement movement, and many of its contributors, such as Stiles, Mary C. Robbins and Sylvester Baxter, were adamant advocates of both movements.³⁷

In fact, along with the trend of urbanization and industrialization, the interaction between cities and countryside was frequent and profound, and the economic dependence as well as the cultural communication made the boundary between the rural and the urban very permeable. As early as 1888 when the magazine was just published, *G&F* already saw the necessity to reform village improvement with urban principles. After its high praise of all the achievements these rural societies had gained, the magazine pointed out that “in too many instances the zeal of the few has been only superficial, or what is quite as bad, it has been uninstructed; and just here lies the fundamental reason for the most signal failures.” So what these societies needed to do was to look for instructions and assistance from experts. The editors stated: “If the service of an expert is needed for the preparation of a creditable design for the improvement of private grounds, how much more is special training demanded when an entire town is to be treated with a view to the development of its landscape possibilities!”³⁸

The rise of tourism in the later 19th century further infected the rural landscape with urban people’s imagination and expectation. The “health, convenience, and taste” that *G&F* urged village improvement societies to accomplish were not merely to better the life of rural inhabitants, but also to fit urban tourists’ requirement for

³⁷ Editorial, “The City Improvement Societies,” *G&F*, 20 August 1890, 401.

³⁸ Editorial, “Rural Improvement Societies,” *G&F*, 23 May 1888, 145.

comfort and preference. The more attractive rural circumstance, suggested by *G&F*, would benefit the rural economy. There was “a tangible business advantage to be gained by country villages when they are made specially attractive to city visitors; and this profit accrues not to the villages alone, but to all the surrounding region, when the farm-houses are open to paying occupation, and a market is provided for the products of the farm.”³⁹

The effort of *G&F* to help village improvement turn into a more modern and comprehensive movement was not futile. Even the organizers of village improvement showed the sign to step out of the enclosure of their locality. A note appearing in the last volume of *G&F* in 1897 indicated that a member of Laurel Hill Association, the first village improvement society in Stockbridge, Massachusetts, suggested “a combination between all similar societies in Berkshire County, or, if possible, in a still wider area, to work for rural improvements and for the preservation for public enjoyment of places of great natural beauty or historic interest.”⁴⁰

Although *G&F* intended to incorporate villages and its landscape to its integrated civilized landscape, it did not try to impose uniformity on this landscape. Like the rules they cherished in constructing landscape parks, the uniqueness of each place was the paramount element they intended to preserve. In terms of countryside, the local identity and pride also needed to be enforced.

³⁹ Editorial, “The Improvement of Villages,” *G&F*, 27 March 1889, 145; “The Money Value of Rural Improvements,” *G&F*, 22 January 1890, 37.

⁴⁰ Notes, *G&F*, 22 September 1897, 378.

In an editorial on establishing “county parks” in villages, they expressed this more complex concern with rural improvement. First of all, they indicated that “grounds for associated recreation are quite as desirable in the country as in the city,” although the reasons were in some way different. The editors discussed the argument made by Professor T. H. Macbride that there were three reasons for the need of the “county park”—as Macbride termed—in the countryside, especially in western states. The first reason was that the condition of rural life was even monotonous than the one in cities. Though farmers had intimate contact with nature every day, this contact was “in painful efforts to wrest a living from the land, to struggle against untoward conditions of climate and to fight for existence with other forms of life continually.” Thus, a public park with picturesque scenery merely for recreation would alter farmers’ view of nature, letting them appreciate the nature they always fought with. The second reason was that a well kept county park “would be a perpetual object-lesson in the best means of preserving and enhancing the essential landscape beauty of any given area, and that this would suggest ways of making home-grounds attractive.” Through realizing the beauty of their homeland, the local identity and dignity would be elevated too.⁴¹

The last reason was also the most interesting one to the editors and the most inspiring one to modern readers. They argued that in the long settled eastern states, native flora and fauna were extinct to a great extent, but in the West, the large size primeval landscape could still be found. It was urgent to rescue the original animals

⁴¹ Editorial, “County Parks,” *G&F*, 3 June 1896, 221.

and plants there from being wiped out. The editors cited the words of Macbride that “such is the aggressive energy of our people, such their ambition to use profitably every foot of virgin soil, that unless somewhere public reserves be constituted our so-called civilization will soon have obliterated forever our natural wealth and leave us to the investigation of introduced species only or chiefly.” It would be exaggerating to claim that they made this statement based on their understanding of a healthy and undisturbed ecological system—in fact, it suggested patriotism more than environmental concern, but it is fair to argue that they lamented the extermination of native flora and fauna and felt eager to preserve these localities in their integrated landscape.⁴²

The central theme of this integrated landscape was to place nature under the regulation of civilization, but it did not suggest eliminating the uniquely local and nature’s own qualities. It not only implied a form of civilized nature such as urban parks and gardens, but also referred to a situation where nature maintained its own economy, such as the wilderness areas where the mission of civilization was not to humanize nature, but to defend the intactness and primitiveness of nature through fighting against invasions and destructions caused by various forces. The first form of nature was desired in people’s daily life and living environment, but the second form was needed for a deeper aesthetic and spiritual experience.

The two aspects in conceiving the integrated landscape did not develop in parallel lines; in another words, the two forms of nature in this landscape did not exist in

⁴² Ibid.

completely separated spheres. Their geographical and biological spheres in many ways interlocked. Even in the most tamed garden, there was the survival of some wild animals and weeds; and in the wildest area, the traces of human influence could still be discerned. The fundamental difference between the two domains was that, in the former, the controlling role was man, and in the latter, the dominant force was nature. The Boston metropolitan park system served as a good example to explain this overlapping relationship. This system extended from the formalized landscape of Boston Common and Commonwealth Avenue Mall, to natural landscape gardens, such as the Arnold Arboretum and Riverway Park, to wild original forests, rivers, hills, wetlands, and meadows, like the Waverly Oaks and the Middlesex Fells. For the editors and contributors of the magazine, the Boston metropolitan park system should be a miniature of the entire nation where gardens and forests, cities and villages, all achieved their harmonious coexistence and cooperation through which civilization expressed its true meaning.

Many social activists might complain that the passion for the beauty of nature *G&F* tried to kindle was the middle and upper-middle class's aesthetic fantasy superimposed on working class. And some wilderness enthusiasts might argue that the nature which *G&F* was constructing in cities, was illusionary or at least over idealized. But they could not deny that these contributors' work and concern dealt directly with everyday experience, not any abstracted metaphors or theories. From the standing street trees and the urban parks found in this integrated landscape, we can see their well-conceived environmental logic; and from the people with different

social and education background enjoying this landscape, we can see that they had their own sense of social justice.

Chapter 6

The Manifold Values of the Nation's Forests

On September 14, 1894, the Constitutional Convention of New York State passed a constitutional amendment related to the state forest-land, in which it stated: "The lands of the state, now owned or hereafter acquired, constituting the forest-preserve, as now fixed by law, shall be forever kept as wild forest-lands. They shall not be leased, sold or exchanged, or be taken by any corporation, public or private, nor shall the timber thereon be sold, removed or destroyed." Although having fought assiduously for preserving the forests in New York State since the beginning of the magazine's publication, the editors of *G&F* did not feel exhilarated after they learned the news. They admitted that this event demonstrated an increasing interest in forest issues among policy makers in New York State, but at the same time, they worried that the adoption of this amendment pushed the forest policy in this state from one extreme to another. According to *G&F*, the indiscriminative prohibition on use was the same sort of "actual and reprehensible waste" as abuse.¹

In the editorials discussing the amendment, the editors argued that the amendment was "a serious misconception of the true relation of the forest to civilized society," which not only denied the value of rational scientific forest management and its agency in improving forests, but also underestimated either people's "intelligence" or

¹ Editorial, "The Constitutional Amendment Relating to State Forest-lands" *G&F*, 19 September 1894, 372; "Forestry in the Constitution of the State of New York," *G&F*, 12 September 1894, 361-2.

their “moral fiber” to adopt and develop “such a system of forest practice.” They pointed out that in the United States there was no necessity to emphasize one value of forests at the expense of other values. “Under proper management,” the editors wrote, “a forest can yield its products which are indispensable to civilized men, and can even grow in productiveness every year, while its beneficent influences on soil, climate and water-supply will remain wholly unimpaired.” The North Woods could and should fuel the progress of a civilized society in multiple ways. The magazine also expected that the forests managed by scientifically trained foresters in this part of the nation would become a model for the “New World conditions, and be an object-lesson in forest economy for the whole country.”²

The stance that *G&F* took on the issue of New York State forests outlined the basic perspective it maintained throughout its publication: the forests had to be used in an efficient and scientific way. The last quarter of the 19th century witnessed great social transformations brought by urbanization and industrialization, but these changes were accompanied by the unprecedented aggressive consumption of nature. Once again, the editors and contributors of *G&F* expressed their paradoxical attitude toward modern civilization, embracing the material and scientific progress on the one hand, while worrying about the trajectory their civilization was following on the other. In its essence, this concern was consistent with the anxiety they felt over the alienating relationship between man and nature in cities, although in forest matters,

² Editorial, “The Constitutional Amendment Relating to State Forest-lands,” *G&F*, 19 September 1894, 372; “Forestry in the Constitution of the State of New York,” *G&F*, 12 September 1894, 361-2; “Proposed Change in Forestry Practice in New York,” *G&F*, 10 February 1897, 52.

they dealt more with a broader national-scaled economic problem. The major premise of both concerns was that nature was relevant to the development of civilization. Just like people's physical and psychological need of nature, a nation also needed nature for its growing economy and dignified spirit. Seeing forests "much more than storehouses of growing timbers," the magazine indicated that in forests, there was a complicated world whose existence and destiny was tightly intertwined with the future of their civilization. The economy of human life and the economy of nature were inseparable.³

The perceptible degradation of the nation's nature awakened a fear of "forest famine" in the 1880s among some highbrow intellectuals, including Sargent and many other contributors of *G&F*. The contemporary problems made the terrifying picture portrayed in *Man and Nature* by George Perkins Marsh, clearer and closer. The inexhaustibility of natural resources on this new continent was proved to be a mere fantasy conceived by white intruders who were obsessed with instant self-interest and insatiable want. "Until very recently," the editors of *G&F* did not hide their severe criticism, "the people of this country have been unwilling to admit the necessity of foresight or self-restraint in any direction. Wastefulness has been regarded as an indication of broad and generous qualities, and it has become a prominent feature in the national character. All our possessions have been considered inexhaustible and have been treated accordingly. We have slaughtered and devastated whatever belonged to the nation, our soil, forests, fish and game, out of mere wanton

³ Editorial, "The Future of American Forest;" *G&F*, 14 March 1888, 25-6.

destructiveness and folly worse than barbaric.” The fear of the decline of the nation’s natural resources compounded with the apprehension of the public’s ignorance motivated the magazine’s incessant discussion of forests and forestry.⁴

But in no way were these people pessimists. They never gave up their confidence in the continuous development of the nation’s economy and environment. Though it turned out that the views among the contributors and editors were not unanimous in terms of the practical management of forests and the deserved focus of their values, on one fundamental they were not in conflict. The magazine in general believed that in this industrialized and urbanized society, there was a strong and urgent need of scientific forestry on the part of government, which was aiming at and capable of realizing the sustainable “manifold uses” of forests: their commercial value producing timbers, their ecological value preserving natural reservoirs and habitats, and their aesthetic value displaying natural and primitive beauty. With forestry, the magazine was certain that the nation would balance the need of economy and ecology, and the coexistence of usefulness and beauty. The utmost motivation of their advocacy was still the adamant commitment to progress. And the core of it reiterated their social dream, seeking to make nature enforce the material foundation for a democratic society, in which the wealth drawn from land would be shared by the public instead of being seized by a few capitalist barons.

Thus, the central question of this chapter is: what suggestions did the editors and contributors of *G&F* give to realize the sustainable manifold uses of forests? To

⁴ Editorial, “The Increase of Population as Related to the Forests,” *G&F*, 23 July 1890, 354.

answer this question, it is important to analyze the following questions: What were the values of forests, or in another word, how could forests be used in multiple ways? During the process of transplanting the concept of forestry from Europe to American soil, how did the magazine try to define this term and establish its principles in a new environment? According to the magazine, what was the responsibility of government in protecting and using the nation's forests? And what kind of role should the general public play in shaping the new relationship between humanity and nature?⁵

For almost three centuries since white peoples' arrival in America, forests had been exploited in a wasteful way. Under the doctrine of improving every piece of wild land into productive fields, forests had been regarded as troublesome obstacles and sometimes even obnoxious enemies to be exterminated. Meanwhile, it had been taken for granted to pillage all sorts of resources from forests to fill people's endless and expanding need. The teeth of saws, the appetite of sheep, and the tongue of fire, under the direction of the combined myth—the inexhaustibility of natural resources and the unlimited growth of individual wealth—rapidly devoured the bountiful forests in the continent. Forests, in the eyes of Americans until the end of the 19th century, should either be cleared out to become fields and pastures, or be cut down to turn into timbers. A tree lying down on the ground was much better than a standing one. Beyond this, they hardly found any other values in forests.

The magazine attempted to open Americans' eyes to a more colorful and comprehensive picture of the nation's forests. The editors and contributors of *G&F*

⁵ Editorial, "Forestry in the Constitution of the State of New York," *G&F*, 12 September 1894, 361-2.

constituted the most knowledgeable group on forest of their age in the United States, probably in the world. Their intimate acquaintance with forest and nature in general led them to emphasize the complexity and diversity of the natural landscape. Forests, in different regions, were bestowed with different values. It is true that forests, first of all, are aggregations of trees. Growing in various forms and places, however, they address particular functions. The magazine intended to make the public and policy makers aware of this variety: in many regions, forests should be cut, grown, and re-cut to persistently supply timber; in other places, their most significant value was to preserve the sources of rivers, streams, and soil; and in still other places, forests should be maintained in their wildest and most original situation for their sublime beauty. Meanwhile, *G&F* also tried to convince its readers that in most cases, these values could be reconciled without conflict in the same forest if proper regulation was applied.

However, unlike what the magazine advocated in urban parks where beauty was the ultimate reason for their existence, in the nation's forests, the practical, or more accurately the economic use was given priority over other values. Even an advocate of natural beauty as enthusiastic as J.B. Harrison could write that "nothing could be more absurd than the notion that trees should never be utilized or removed. Whenever a tree has come to its best [situation] it should be cut down, and its wood applied to some useful purpose, so as to obtain its value, and in order to provide for a succession of generations of trees, and thus for the permanent life of the forest." With the faith in forestry, the magazine conceived an ideal circle: when the mature trees were cut

down at an appropriate time for domestic and industrial uses, the younger trees would still hold soil, protect sources of water, convey fresh air, and display beauty... And “All this would have been practicable, if we had been sufficiently civilized.”⁶

Based on this assumption, in their comparison between lumbermen and foresters, the editors pointed out that the two groups had the same interest in a long run, and both wanted to transfer living trees into growing profit. Even “the most conservative and scientific forestry has the same end in view; that is, the purpose of good forestry is not to save trees, but to cut them and use every one.” What differentiated them was not their final purpose, but their way of realizing this purpose. The lumbermen’s way was extravagant and shortsighted while the foresters’ was efficient and far-sighted.⁷

The editors and contributors of *G&F* were not ignorant of the increasing demand of timber in this nation’s development. On the contrary, they were so sober about the pressure from the contemporary industrial progress that they emphasized the value of forests as providers of timber. The editors started the discussion of the forest issue for an entire decade with this paragraph:

The forests of the United States play an important part in the economy of the nation. Their annual product far exceeds in value any of our great staple crops of the field. The gold and silver mined in the country is insignificant in value compared with the money value of the forest crop. It is difficult to picture the commercial and agricultural ruin which would follow any general disturbance of the productive capacity of our forests.⁸

In the following ten years, they devoted their effort to prove this statement from different angles. The “tree crop” was relevant to every corner of the industrial society.

⁶ J.B. Harrison, “Correspondence: Forests and Civilization,” *G&F*, 17 July 1889, 345; “The Forest: Forestry in New England,” *G&F*, 20 February 1889, 92.

⁷ Editorial, “Lumbering and Forestry,” *G&F*, 1 November 1893, 451.

⁸ Editorial, “The Future of American Forest,” *G&F*, 14 March 1888, 25-6.

The ties needed for extending railroads, the fuel used in factories and mines, the original material for houses, furniture, paper, and almost all sorts of industries, in cities and villages, all came from the forests. For the basic as well as most luxurious uses, forests were being consumed by the growing economy in an unprecedented speed. “The forest primeval,” Bernhard Fernow wrote, “is our most valuable inheritance. It is the ready cash of nature's bountiful provision for our future. Of all the natural resources reserved for our use it is the most directly useful, for in the forest we find ready to hand, without further exertion than the mere harvesting, the greatest variety of material applicable to the needs of man, the means to satisfy every direct want of life.” This value became more significant when it was clear that people could not substitute timber with anything else, and if forests were gone, “no other country could supply us with the material we should thus lose.”⁹

If timber meant part of the foundation of the nation's economy, for farmers, it could be a wise investment and its subsequent profit. On the issue of the present predicament of farmers and agriculture, the editors and contributors of *G&F* had their concerns. In an editorial published in 1891, they quoted and agreed with a public address given by the former secretary of the Interior Department Carl Schurz, which argued that the “discussions of tariff and currency and other economic problems might be postponed to some future day, for mistakes in this direction might be rectified by a change of system, and the losses incurred might be retrieved.” The more pertinent crisis was the disappearance of the nation's forests. Those men “who

⁹ Bernhard Fernow, “The Forest: Its Significance as a National Resource,” *G&F*, 29 July 1891, 357-8.

imagine that the free coinage of silver will bring prosperity to them,” should also see that planting trees was a more direct and promising remedy to their problems. Thus, the magazine suggested that “the diffusion of knowledge and propagation of sound and practical ideas regarding the care of farm woodlands, and the value of timber as a permanent crop, should be a prominent feature of the work of the Granges and other organizations of farmers.”¹⁰

In the process of disseminating this knowledge among farmers, the magazine expected to alter an ingrained canon among farmers that every inch of land should be tilled. There was land suitable for agriculture, and there was not. Farmers should learn what nature had given to their land, and utilize this rather than subdue it. The ruin of agriculture in many New England counties had demonstrated that an aggressive harvesting imposed on the land could only be profitable temporarily, but would be destructive to the soil and the farmers themselves in a long run. “Our agricultural population cannot always continue to go west,” the editors warned, and the increasing population sooner or later had to rely on the once abandoned land east of the Mississippi. Meanwhile, they pointed out that the Western states, instead of repeating the mistakes of the East, should learn a lesson from it. In an editorial titled “Farmers and Forestry,” the editors stated that “The precepts which should be often repeated to farmers are not that trees produce rain or that trees are sacred objects, which cannot be cut without offense to man and nature.” Farmers should learn to see trees as a crop with money value and to respect the laws of nature for their own benefit. The

¹⁰ Editorial, “Congress and the National Forests,” *G&F*, 11 February 1891, 61-2; “Our Forest Interests,” *G&F*, 18 December 1889, 601.

magazine noted that “wood-lands can only be made profitable when the same care is given to the selection of trees with reference to soil and climate as is bestowed upon the selection of grain and other crops, and that the rules which Nature has established for the perpetuation of forests must be studied and obeyed.”¹¹

The true economic value of forests certainly was not the only one for people to learn. The magazine intended to have their readers realize what most people failed to realize, that a living forest had values far beyond a pile of cut trees. With the undergrowth, fauna, flora, soil, water, and climate, it formed a holistic system whose balance and intactness was profoundly connected with human civilization. Fernow’s words in the magazine accurately summarized this view:

...all things in nature have their relation, and that if we interfere with their adjustment we are sure to throw them out of balance and suffer accordingly. We have another lesson, which teaches that cultural and forest-conditions are closely related to each other, and that, as we disregard proper forest-management in utilizing nature’s gifts, we must bear the consequences in other directions.

What concerned the editors and contributors of *G&F* the most was the relationship between forests and the sources of water, which, they believed, was crucial to the nation’s dream of transferring the semi-desert of the West into a blossoming garden.¹²

In an editorial titled “Mountain Reservoirs and Irrigation,” the editors, filled with romantic passions, celebrated the vast changes brought by irrigation. When “an arid and barren waste” was transformed into “a fruitful and populous land” by the magic of water, “vital feelings of delight” were awakened. They exalted the introduction of irrigation to an arid region as one of the greatest “original creative” powers that

¹¹ Editorial, “Farmers and Forestry,” *G&F*, 11 July 1888, 229.

¹² Fernow, “Effect of Forest-Mismanagement on Orchards,” *G&F*, 24 September 1890, 462-3.

human being had ever had. "As the life-giving water invades, conquers and possesses the country," the editors hailed, "its progress is like the march of a triumphant and liberating army, but there is no death or suffering or destruction in the gentle and pervading flow. It brings verdure, beauty and fruitfulness everywhere, and makes the desert to rejoice and blossom as the rose."¹³

However, an ecological chain connected the wild forests with this productive garden. The deterioration of the former led to the disillusionment of the latter, no matter how creative human power could be. The rivers and streams with their origins in the mountains were the major source of artificial irrigation, and the mountain forests constituted "the natural reservoirs for the storage of the water which sustains these rivers with equable flow through the whole year." The forests generated a floor "composed of root-fibers, leaf-mould and decaying vegetable matter," clutching the soil and slowing down the process of snow melting. "If the forests which cover the mountains are destroyed the snow will melt more rapidly than it does at present, and the water will seek the valleys, not gradually, but suddenly and rapidly." The rivers would be converted into "torrents" every spring and summer, and the water needed for irrigation would be "wasted," flushing soil and rocks from high mountain slopes down into valleys, which "sooner or later, will be buried past redemption." "The extinction of the mountain forests," the editors summarized, "results in the

¹³ Editorial, "Mountain Reservoirs and Irrigation," *G&F*, 3 July 1889, 313.

destruction of the mountains themselves, and in that of the streams which have their sources in them.”¹⁴

This value of forests as natural reservoirs could not be counted in dollars and cents. “The progress and development of many portions of the Pacific states depends almost entirely upon their water supply; so much so that a failure of this supply would paralyze all industry and involve the entire section in bankruptcy.” And the fate of mountain forests would “determine the future of vast areas in the western part of our country, whether they shall be fertile, populous and prosperous, or irreclaimably barren, and, in large degree, uninhabitable.” It was the dream of turning the West into a garden that motivated the editors and contributors of *G&F*, most of whom were from the eastern side of the continent, to set their concerns on these remote regions. This dream was part of the national obsession with progress. If progress in the West at the time mainly referred to the harvest of agriculture, in the East it centered on the flourishing industry and sprawling cities. Here, the magazine found the value of forests as natural reservoirs too.¹⁵

In 1896, when a flood of the Merrimack River once again swept the valley, jeopardizing a newly repaired dam and “compelling the factories to stop work and leaving six thousand operatives without employment,” the editors worried about the continuing development of the industrial heartland of waterpower. They endorsed the words of T. Jefferson Coolidge, the treasurer of the Amoskeag Manufacturing

¹⁴ Editorial, “Mountain Reservoirs and Irrigation,” *G&F*, 3 July 1889, 313; “The Forests of California,” *G&F*, 26 September 1888, 361.

¹⁵ Editorial, “Forests of California,” *G&F*, 15 January 1890, 25-6; “Our Forest Interests,” *G&F*, 18 December 1889, 601.

Company, that the major cause of the flood and the consequent catastrophe was the denudation of the land where the headwaters of the Pemigewasset and other tributaries of the Merrimack were. In this editorial, they directed their readers' attention to an essay written by historian Francis Parkman in 1888 on the forests in the White Mountains, in which Parkman concluded: "This subject [the relationship of the Merrimac River and the forests] is one of the last importance to the mill-owners along these rivers."¹⁶

This was not only a warning given to the mill owners in the Merrimack River valley, but an alarm *G&F* rang for the ears of people all over the nation. Throughout its publication, *G&F* devoted many pages to the relationship between headwaters and forests in the northeast part of the nation. In the Adirondacks, they claimed that "all other questions regarding the North Woods are unimportant in comparison with that relating to the water supply." This issue had "national importance," for "one of the principal commercial rivers of the world depends upon these forests for its existence." On the New Jersey side of the Delaware River, the slopes was in danger of being ruined by the "strongest current of water" when forests were removed. In its pages, *G&F* listed cold but clear facts of the dependence of headwaters on the northern forests, carefully depicting pictures of desolation and loss after the damage of forests,

¹⁶ Editorial, "Forests and Floods," *G&F*, 4 November 1896, 441; Francis Parkman, "The Forests of the White Mountains," *G&F*, 29 February 1888, 2.

sincerely sympathizing with the traumatic experience the local people suffered from, but sharply criticizing their ignorance and shortsightedness.¹⁷

On both sides of the continent, the conservation and regulation of forests were associated with the rationalization and distribution of water. Use was still the essence of all the concerns. The magazine did not challenge the exploitation of one natural resource for the sake of the other, but merely revealed the ecological chain between these two which was not completely under the control of human beings. The editors and contributors of *G&F* believed that humans could either adapt to this chain, utilizing it for their need, or distort this chain which would consequently harm their own welfare. But in either way they could not cut off this chain or ignore the power of it.

Another ecological chain which ties forests with their fauna and flora was also discussed in the magazine. Being a magazine centering on plants, *G&F* paid less attention to the animals living in forests, but that silence did not mean it was indifferent to them. In its discussion of forest values, the magazine saw forests as the indispensable habitats for big and small game and fish. In his essay on the value of mountain forests, Harrison wrote that “as a part of this sanitary function of mountain forests, their value as natural preserves for fish and game deserves far more serious and intelligent attention than it generally receives.” Once forests were destroyed, the game and fish would be deprived of their living resources, and finally would go

¹⁷ Editorial, “Legislation for the Adirondacks,” *G&F*, 12 March 1890, 121; “The Adirondack Forests in Danger,” *G&F*, 28 March 1888, 49; J.B. Harrison, “The Forest: The Forests and Woodland of New Jersey, III,” *G&F*, 30 January 1889, 57.

extinct. But the emphasis of this value also derived from the needs of human beings. As a significant part of human recreation, hunting and fishing, if pursued by “civilized and orderly anglers and hunters,” was “legitimate and proper.”¹⁸

But for the flora, the editors and most of its contributors reserved a special sympathy, which sometimes went beyond that anthropocentric perspective. In this magazine, they discussed thousands of species and their living environment, some magnificent and rare, some small and normal. In many editorials and essays, they deplored the vanishing native species and called for preserving the wild flowers in forests and meadows. “The true lover of flowers,” the editors wrote, “loves them best when they are appropriately placed and surrounded; and in the case of wild flowers this must usually mean when they are in their own wild home.” And in most cases, their wild home was forests or marshes, which were too wild to stay in their original situation in most people’s eyes. Thus, in his essay “The Disappearance of Wild Flowers,” William Beal lamented that when woodlands, marshes or ponds no longer remained “unimproved” (a quotation mark added by Beal), many native wild species would disappear too. This would be a great regret for “a botanist and lover of nature.” So he asked people to save these flowers before they were “burned over or plowed under.” In another essay, C.L. Allen discerned that the extinction of many native species was due to the clearing of forests which “has removed the protection that nature afforded them.”¹⁹

¹⁸ Harrison, “The Forest: Value of Mountain Forests-II,” *G&F*, 24 December 1890, 625.

¹⁹ Editorial, “Spare the Wild Flowers,” *G&F*, 9 October 1889, 481; W.J. Beal, “The Disappearance of Wild Flowers,” *G&F*, 30 October 1889, 527; C. L. Allen, “The Disappearance of Wild Flowers,” *G&F*, 25 December 1889, 623.

Undoubtedly, in their advocacy of sparing wildflowers, they mixed in some patriotic feelings. But the stronger sentiment beneath it was their deep affection for plants themselves combined with scientific interest. Thus, they were not hesitant to condemn the carelessness and greed of collectors. However, on the question of whether these wild districts, like a marsh or a pond or even a forest, should be “improved” or not, they became more reluctant to speak. They kept silent on another question too: to what extent, could these beloved wild flowers survive under the practice of their admired scientific forestry? Could the humble undergrowth still thrive in their “improved” home? Or would their only refuges be arboretums or botanical gardens, like Sargent’s Arnold Arboretum? There were no answers given to these questions. Probably the magazine knew that these species were not gorgeous enough to halt the trampling drive of improvement, or more accurately speaking, to melt the apathy of the public. The general public needed something more sublime which displayed exceptional American character to appeal their attention, because this passion for the scenery was associated with national dignity.

The Giant Sequoias in Tulare County, California, the Redwood forests of the California coast, and the southern Alleghany deciduous forest were “the three most interesting forests in the world.” All could satisfy romantic fantasy and instill patriotic pride. These forests were the “treasures of beauty and sublimity, of majesty and mystery, of grandeur and of grace,” which should be maintained to be transmitted to their posterity, so that “future generations of men may see and understand the capacity of American soil, and the beauty and majesty of its supreme products.”

Especially the sequoias, which were the “marvels of the vegetable kingdom” and “probably the oldest living organisms” on the earth, should be protected by the entire nation. The magazine believed that “every individual [sequoia] is a monument which should be sacredly preserved for the benefit of future generations. To cut down one of these trees is a crime, and it should be a matter of national humiliation that a considerable part of the Sequoia forest has been allowed to pass from Government control into the hands of lumbermen.” Being the “nation’s inheritance,” these trees “are worth infinitely more as they stand than they would be when cut down and sawed up.”²⁰

For *G&F*, protecting the intactness and primitiveness of these forests did not conflict with the idea that forests should be used. These forests occupied only a small percentage of the vast forest resource in the nation, but showed the rest of the world American legend and glory. The enshrinement of them was not different from treasuring the remnant ancient architecture works in a burgeoning city in which those less noble and less famous old buildings would be unquestionably replaced by the more improved and modernized ones.

Preserving forests for their fauna and flora, as advocated in *G&F*, addressed the third major value of forests, their existence as an aesthetic entity. This value was enforced by the spiritual and physical needs of people in the urbanized and industrialized society. The more the expanding cities and their requirement for wealth

²⁰ Editorial, “A Scheme of Californian Lumbermen,” *G&F*, 6 October 1897, 390; “National Parks,” *G&F*, 6 August 1890, 377; “A Suggestion,” *G&F*, 13 July 1892, 325-6; “The Sequoia Reservation,” *G&F*, 27 April 1892, 193.

and comfort encroached on and consumed forests, the more their residents flew to vanishing woods for the search of fresh air, rich verdure, the contact with nature, or escape from routines and constraints. This was the fundamental motivation for constructing urban parks, and also the major reason for preserving wild beauty in more remote places. To illuminate and encourage this need among the public was thus the recurrent theme of *G&F*.

The founding of national and state parks signaled that the aesthetic value of forests was recognized and institutionalized. In the magazine, the formation of national parks and the concept behind it were both embraced, although when the Giant Sequoias in California were proposed to be a national park, the editors questioned why these wild spots were designated by the name of “park,” a word which suggested “to most people some attempt at gardening or decoration.” They argued that since this reservation was primarily a forest, “it should be so designated,” for which suggested a wilder and more primeval character. The question of designation raised by *G&F* illustrated the editors’ ideas of the preservation of primitive natural scenery which should aim at defending its wildness, and any efforts of adding artificial features to this natural wonder would be incongruous and ridiculous.²¹

The editors and contributors of the magazine saw this wild natural beauty in the Adirondacks, the White Mountains, the Sierra Nevada, or wherever there was a forest. Preserving “natural beauty or grandeur” was “a duty of civilized society.” When “the

²¹ Editorial, “National Parks,” *G&F*, 6 August 1890, 377.

wildness” was “chased away” by railroads, settlements, and city markets, these places “would still have attractions, but ... would no longer be a wilderness.” “The strangeness and romance would all vanish, and with them the temptation to tent-life in the presence of untamed nature.” They would still be attractive but mere “a commonplace collection of mountains and woods and lakes, with the ordinary conditions of work-day life forever in sight.” Then the substantial meaning of running to the mountains would be gone. Pursuing wildness in wilderness meant reclaiming the freedom that modern people were losing in the disciplines and hierarchies of an industrialized and urbanized world.²²

It was this pursuit which pushed forward the development of a lucrative business: tourism. On this issue, the magazine expressed its paradoxical feelings toward progress. There was no doubt that the editors and contributors celebrated the rising tourist business as well as its interest. The magazine regarded the growth of tourism in the nation’s mountains and forests as leading to the refinement of the public’s taste. Also, *G&F* applied the profit acquired from this business as the major lure to intrigue local government and people to preserve these wild spots. The magazine intended to make people pay attention to “the close relation between good taste, beautiful scenery and the qualities of an advanced civilization on the one hand, and the means of subsistence on the other.” The latter part referred to the big revenue extracted from tourism.²³

²² Editorial, “Save the Big Trees,” *G&F*, 30 July 1890, 366; “Railroads in the Adirondacks,” *G&F*, 10 June 1891, 266.

²³ J.B. Harrison, “Correspondence: Forestry Matters in New Hampshire,” *G&F*, 12 February 1890, 81.

But at the same time, the editors and contributors of *G&F* conveyed their apprehension of the impacts that the burgeoning business inflicted on the wild landscape. The flood of visitors would make the preservation of wild forests much more difficult. “The undergrowth will be trampled to death; there will be need of drainage to make dry walks, and this will sap the life of some of the trees; the by-paths will be worn wider; the turf in the green roads will be ruined.” New roads would be built and new hotels would be opened. Urban visitors were often thoughtless and “their carelessness in setting fires and their recklessness in barking and destroying trees, are only too well known.” But all these problems should not become the obstacles which hindered the growth of tourism. The magazine believed that the problems deriving from the design of tourism spots could be solved by professional landscape architects. And the visitors could be educated. With the aid of systematic rules, the thoughtless behaviors would be restricted.²⁴

The more serious danger to wild forests, the magazine found, was from railroads. In the late 19th century, the whistle of the train played the crescendo of industrial progress. The newly built railroads dramatically shortened the distance between regions, and made remote forests and mountains accessible to thousands of visitors from all over the nation even the world every day. But in the wilderness of the Adirondacks, the White Mountains, the Rocky Mountains, and the new national parks, the editors of *G&F* said NO to the railroad. In their magazine, they fought a lasting

²⁴ Editorial, “Epping Forest,” *G&F*, 29 July 1896, 301-2; “The Adirondack Forests in Danger,” *G&F*, 28 March 1888, 49.

battle with the railroad companies. The Adirondacks was the hottest spot in that battle, and Sargent, Stiles, and Harrison were most active in this campaign.

From the beginning to the end of its publication, *G&F* did not change their stance in opposing the ambition of building railroads in the Adirondacks. Their argument stayed the same throughout the ten years that railroads meant the extermination of forests. In the case of the Adirondacks, they argued that ninety percent of the Adirondacks forest were hardwood trees, which could not float on water after being felled. Without the assistance of railroads, it was difficult to transport the timber to the outside markets; thus, the forests had been conserved and the wildness did not vanish. Once railroads penetrated the wilderness, as the railroad companies proposed, “every stick of hard wood which these forests contain will, in a surprisingly short space of time, be brought to market; while the danger of fire will increase in proportion as they are built.” The wild picturesque scenery would be transformed into a modern industrial accomplishment, and one of the most precious values of the Adirondacks would be gone forever. The editors claimed that excluding railroads in wild forests would be “a most wise and practical step forward-a real advance in civilization.”²⁵

But opposing the building of the railroads in wild forests did not mean that the magazine denied the utilitarian value of the Adirondack or any other wild forests. The damages brought by railroads were too long-lasting, but there were other ways to realize the multiple uses of forests. In another editorial on the issue of the railroad and

²⁵ Editorial, “Railroads in the Adirondack Reservation,” *G&F*, 3 April 1889, 158-9; “Railroads and the Adirondack Reservation,” *G&F*, 17 April 1889, 181-2.

the Adirondacks published in 1891, the editors claimed that there should “be a steady income from a permanent forest,” and “such a utilization of its products will not depreciate the value of the forest as a reservation.” They argued that the necessary facility of transportation should be provided, “but it is quite possible to accomplish this by a system of narrow-gauge gravity roads through the tract, together with timber slides and such other appliances as lumbermen of the present day are familiar with.” With these less destructive facilities, the manifold values of the Adirondack would be realized.²⁶

In most regions, the magazine believed that keeping the natural beauty unimpaired was in harmony with obtaining wealth from the same forest. In many essays, the editors and contributors of *G&F* expressed this ambition and confidence:

The timber can all be utilized without destroying forest-conditions on the mountains, and the great manufacturing interests of the state require the preservation of the forests in the regions where the rivers have their sources. There is no important interest of the state which would not receive advantage from the permanent maintenance and intelligent management of her mountain forests....

And at the same time, “the principal and essential charm of the remarkably beautiful and attractive mountain scenery” could be secured because forestry encouraged trees to grow.²⁷

Thus, what is forestry? This was one of the central questions *G&F* tried to answer. Forestry, this European concept, was almost completely novel to the American public who had been self-deceived by the entrenched faith in their “inexhaustible” forest resource. When this faith was shown to be an illusion, some intellectuals represented

²⁶ Editorial, “Railroads in the Adirondacks,” *G&F*, 10 June 1891, 265.

²⁷ Editorial, “The Scenery of New Hampshire,” *G&F*, 9 July 1890, 329.

by Sargent, Fernow, Pinchot, and other contributors of *G&F* felt obligated to introduce this foreign term to the public, and at the same time identify its function, clarify its boundary, and rectify the misunderstanding of its role in the American natural and cultural setting.

This science of forest management had been practiced in European nations for almost three centuries, for the shortage of natural resources had been nothing new in the old continent. Extracting the biggest and longest profit from the limited resources was the task that forestry needed to achieve. And the success of it—the efficient combination of the economic perspective and the knowledge of forests—was conspicuous. In *G&F*, experts on this subject from America and Europe wrote to introduce forestry to America. Fernow published a series of essays on European forest management focusing mainly on the Prussian experience; Pinchot, when he was still studying in Nice, France, sent his observation on forestry in Switzerland back to the editors of *G&F* on the other side of the ocean, and went on writing for the magazine on European forestry issue. Dietrich Brandis delivered his long report on “The Burma Teak Forests” in the forest department of *G&F*.

The common ground of all these essays was that the science of forestry, although coming from Europe, could be and should be applied in the new continent, because “the laws of forest growth are the same the world over.” If the European forestry provided more theoretic inspiration to *G&F*’s discussion on this subject, the success of forestry in India instilled in the advocates of this science in America the hope of practicability. India, with its completely different social and natural environment,

successfully transplanted this European concept to its soil, which powerfully supported the argument made by the spokesmen of forestry. In his letter to Pinchot in 1890, Sargent suggested Pinchot to go stay in India for sometime, for he was convinced that in India, “there is more for an American to learn than there is in Europe.” Sargent went on saying that “I think so because the forest officers of India have had to solve problems very similar to those which exist in much of our western country, both natural problems growing out of the character of the forest and the number of species it contains, and political problems arising from the attitude of the population towards the forest.” In the editorials of *G&F*, Sargent maintained the same tone, and believed that what could be achieved in India, could be fulfilled in the United States too.²⁸

By introducing the European concept and practice of forestry, the magazine intended to clarify the boundary of forestry. It was not a tree-hugger’s cult, but “a branch of agriculture,” regarding trees as a crop. It saves forests, but “they must be saved for use.” Landscape architects were not foresters, no matter how much they are familiar with trees. The former plant trees for beauty, while the latter “for profit of a more tangible character.” The editors summarized the definition of forestry into two sentences: “Forestry is the art of maintaining and perpetuating forests. It is successful in proportion as the forest yields the largest annual income in perpetuity.” Using Pinchot’s words, that forestry regarded the forest as “a great working capital whose

²⁸ Editorial, “Some Timely Lessons from the Forests of India,” *G&F*, 13 May 1896, 191; Sargent to Pinchot, 1 March 1890, Gifford Pinchot Papers, Library of Congress; Editorial, “The Teak Forests of Burma,” *G&F*, 5 August 1896, 311.

function it is to produce interest, and which does not need to be destroyed in the process.” By looking at the forest in this way, Pinchot was convinced that forestry would be removed “from the anomalous and often illogical position into which the mistaken zeal of some of its friends has forced it, and to ground its roots in the solid earth of business common sense.”²⁹

The utilitarian orientation of forestry had been apparent in *G&F* before the topic frequently occurred in the headlines of the nation’s top newspapers and magazines, and before Pinchot rose as the shining star in the nation’s political stage. But forestry should not be relegated to a mere money producing machine. It is worth noting that this utilitarian attitude addressed a much vaster spectrum: the welfare of the entire civilization, not just one individual or one family’s gain and loss. The logic behind it was clear: when the public welfare was guaranteed, the individual profit would be secured subsequently. Forestry considered not only the money directly earned from timber selling, but also the indirect revenue from agriculture, industry, tourism, and commerce through the protection of forests. “The value of mountain forests, and the necessity of maintaining forest-conditions permanently on lands around the sources of mountain streams, are most vital and important features of scientific and practical forestry.”³⁰

The magazine believed that if forestry could be successfully established in America, it had to possess three characters. First, scientific knowledge of forests and

²⁹ Editorial, “What is Forestry?” *G&F*, 9 January 1896, 11; “The Cascade Range Forest Reservation in Danger,” *G&F*, 18 March 1896, 111; Gifford Pinchot, “The Forest: Forestry for the Farmer,” *G&F*, 2 March 1892, 104.

³⁰ Editorial, “Our Forest Interests,” *G&F*, 18 December 1889, 601.

economics was required for a forester, who was supposed to be familiar with the rules of nature's economy and respect it, and to know the laws of social economy and apply it in his practice. People could make forests continually productive by "adapting natural process to the use of man." By cutting, culling, thinning, sowing, and all the other related skills, the waste generated in the natural process would be avoided and man's need would be better met. But merely possessing knowledge of natural science was not enough. Foresters must be financier as well as mathematician, for, practically, "he has the handling of large capital invested in wood production." After all, preservation was not the end of forestry. With the instruction of natural and social science, the yield of forest would increasingly grow, instead of staying stagnant.³¹

Second, foresight was indispensable in forestry. This aspect was the primary concern the editors and contributors of *G&F* had, for they felt that this was the character missing in the contemporary civilization of their nation. The reckless clearing of forests prevalent all over the nation showed no consideration of the future generations and the continuation of their civilization. Thus, in the practice of forestry, this foresight rested on two "self-evident truths" according to Pinchot: "(1) that trees require many years to reach merchantable size; and (2) that a forest-crop cannot be taken every year from the same land." But in a moral and patriotic context, almost every essay on forestry issue published in *G&F* strived to evoke policy makers' and

³¹ Editorial, "Lumberman and Forester," *G&F*, 21 March 1894, 111; "An American School of Forestry," *G&F*, 18 April 1888, 86.

people's awareness of their responsibility for forests for the sake of the future of their posterity and civilization.³²

Third, public spirit was equally relevant in forestry. The editors and contributors of *G&F* clearly knew that the principles of individual freedom were almost impossible to be shaken in their nation, so they felt it was particularly important to arouse the public spirit among their fellow Americans. Many essays of the magazine were devoted to this goal. They indicated that the tragedies caused by the devastation of forests endangered not only the future generation, but more pertinently the present economic safety. And the careless and ignorant actions of individuals exerted on a forest would not only bring "an injury to themselves, personally, but to the whole community," and even to the people whose names they have never even heard." Only when the public spirit dormant in their heart was awakened, would there be hope for forestry to be implemented in this nation.³³

With these three characters, the editors and contributors of *G&F* saw the hope of achieving the ultimate goal of forestry in the United States: the perpetuation and increasing productivity of forests. But from the lessons they learned from Europe, they were aware that without the interference of government, all the efforts would be in vain. Fernow pointed out that "all European governments, without exception, have felt themselves in duty bound to encourage and aid proper forest management and all efforts at reforestation." Laissez-faire policy might be good in some pursuits, but not in the protection and use of forests which needed government regulation and

³² Pinchot, "The Forest: Forest-policy Abroad," *G&F*, 7 January 1891, 8.

³³ Editorial, "Forestry Commissions," *G&F*, 10 October 1888, 385.

legislation. Especially in the United States, the federal government still possessed a vast size of forest land, thus, it could not shirk its responsibility for managing this national property. According to Pinchot, “this principle, special to no country or form of government, holds that ‘the state is the guardian of all public interests.’”³⁴

There were two major reasons for governments on different levels, especially the federal government, to accept their responsibility for forests. One centered on time, and the other one emphasized scope. Compared to the life span of a forest, an individual’s life is transitional and limited. The necessity of permanency for the magazine meant not only the permanent growth of forests, but also a stable and uninterrupted forestry policy. This permanency, according to *G&F*, could only be sustained by a relatively unlimited and durable agent. The former chief of the Division of Forestry Nathaniel Eggleston wrote in his essay that “what is needed in our country, therefore, for the most successful dealing with trees in masses, with forests, is a personality whose life is as lasting as that of the trees themselves. The nation is such a personality.” Although actually no any form of government would last permanently, it is longer lived and more reliable than any individual’s life.³⁵

And the more practical truth of this issue is that the wise and sustainable investment of forestry takes much longer to get any return than most other businesses do. In the editorial “What Is Forestry”, the editors wrote: “A forest crop may take from one to three centuries to come to maturity. During all this period, if it is to earn a

³⁴ Fernow, “The Forest: European State Forestry,” *G&F*, 12 September 1888, 345; Pinchot, “The Forest: Forest-policy Abroad,” *G&F*, 7 January 1891, 8.

³⁵ N.H. Eggleston, “The Forest: Preserving Small Forests,” *G&F*, 24 September 1890, 470.

fair return, it must be managed consistently under a plan made before the seeds are sown and intended to cover every operation in the forest, including its regeneration when the original trees have passed to the saw-mill.” For most individual owners, an instant profit was what they expected and needed. Neither their financial power nor their insight would equip them with enough patience and forward-looking to prevent them from brandishing their axe in their property when it is not the proper time. The consequence was the ruin of forests. Government was less influenced by financial pressure, thus it was easier to maintain a coherent policy on forests.³⁶

An equally important reason for the search for government control came from the geographic and social scope on which forests had their influence. Geographically, many forests covered several states, thus, the interest and impacts associated with them exceeded the boundary of cities, counties, and even states. Especially in the West, a vast extent of forest land was officially in the hand of federal government. The two most serious dangers to forests—pasturage and fire—were rampant on these public domains. Millions “‘hoofed locusts’ [quoting John Muir] not only render permanent forests impossible by the obliteration of all young growth, but they increase the number of fires,” because the herders would “set fire to the dry rubbish in autumn when they descend to the plains to stimulate the growth of herbage for another year.” At the same time, local people took for granted the right to pillage

³⁶ Editorial, “What is Forestry?” *G&F*, 9 January 1896, 11.

resources from public forests. How to adjust the local interest and the right of commonwealth was the challenge for the federal government to meet.³⁷

Socially, forests had an even more complicated interaction with human beings, their agriculture, industry, commerce, cities, health, and spirit, which transcended individual profit and local prosperity, went even beyond the economic sphere, and touched all the aspects of their civilization. Especially the building of national parks, which focused on the aesthetic values rather than the utilitarian ones, demanded a nation to defend their wild beauty, the fauna and flora, and the eco-system in general.

In one editorial, the editors pointed out that:

In the settlement of this forest-question is the opportunity for the display of broad and enlightened statesmanship; there is no place in it for local jealousies or for the gratification of selfish or sordid ambitions. Its settlement will mean the stability and permanent prosperity of an important section of the country, and, what is of even greater importance, it will mean that the people of the United States have attained to that degree of intelligence and long-sightedness which indicate a high condition of civilization.

Forests, on public domain, should bring welfare to everyone in the nation at the present and in the future.³⁸

The advocacy of government responsibility for forest in *G&F* included both the West and the East. In the west, since the federal government possessed millions of acres forest land, the magazine believed it was more of the federal government's responsibility to take care of these forests. They were the property of the nation, which "do not belong to the public-land states, nor do they belong to any one section;

³⁷ Editorial, "The Latest Forest Legislation," *G&F*, 9 June 1897, 221-2.

³⁸ Editorial, "Care of the National Forests," *G&F*, 23 March 1894, 201.

moreover, they do not belong to any class.” And national legislation was needed to protect them.³⁹

In the East, where much forest land had become private property, the magazine, on the one hand, suggested the state governments establish the ownership of the forests through purchase as soon as possible; on the other hand, urged the state to enforce their regulation of the state’s forests through legislation. The laws would restrain some irresponsible acts imposed on forests, like the extension of the railroads or the destructive cutting by lumber companies.

The Adirondacks, whose paramount value was its relationship with the rivers, could never be safe “unless they are controlled by the state working under a permanent policy.” The magazine proposed that the state government should buy the land and establish “a State Park to contain some three million acres, embracing the head waters of all the streams of consequence which take their rise in the wilderness.” *G&F* saw the same necessity in the White Mountains, whose forests were in danger, because the private corporations who owned a great part of the land bought it “for the purpose of converting them as quickly and advantageously as possible into money without reference to the future results of their operations.” Thus, the editors advised that “The best investment the State of New Hampshire can make would be to buy up all this forest-region and hold it perpetually as a forest-reservation.” The core of all these propositions, the laws and the purchase, in the west and the east, was “to ensure

³⁹ Editorial, “The Latest Forest Legislation,” *G&F*, 9 June 1897, 221-2.

equal rights and uniform privileges without any discrimination as to localities or industries.”⁴⁰

But “Laws alone cannot save our forests.” In the same issue where the editors of *G&F* for the first time asked for legislation and government regulation of the nation’s forest, J.B. Harrison warned that laws are not a full solution. The public needed to be informed with the values of the forests and the necessity of the application of scientific forestry so that they could heartily embrace the forest laws and willingly restrict their behaviors. The spiritual foundation of this nation was its liberalism which was against all forms of hierarchy and restrictions. The passion for wilderness in this nation was closely tied with its belief in liberal democracy, but this belief at the same gave its followers legitimate reasons to exploit nature without any internal and external interventions.⁴¹ Since the ultimate goal of protecting the nation’s forests was to solidify the material foundation of the democratic society, more forceful laws and government actions might run against the ideological foundation.

From the outset of its publication, the editors and contributors of the magazine accurately predicted the obstacles set by people with different interests in the process of forcing a national forestry policy. The most eloquent argument from the anti-forestry side accused that this policy would infringe the sanctity of private property, and would impede people’s pursuit of individual freedom. In the editorial entitled

⁴⁰ Editorial, “Legislation for the Adirondacks,” *G&F*, 12 March 1890, 121; “Legislation for the Adirondacks,” *G&F*, 30 April 1890, 209; “The Value of the White Mountain Forests and the Dangers Which Threaten Them,” *G&F*, 8 February 1893, 62; “The Forests of the White Mountains in Danger,” *G&F*, 12 December 1888, 493-4; “Protection of Public Forests,” *G&F*, 10 February 1892, 62.

⁴¹ Donald Worster, “John Muir and the Modern Passion for Nature,” *Environmental History* 10, no. 1 (2005). <http://www.historycooperative.org/journals/eh/10.1/worster.html>

“The Future of American Forest,” the editors wrote that “Americans are impatient of any restraint or interference in the management of their property.” Ten years later, the German forester, Carl Scheck observed the same thing, that “in this country the principle of individual freedom will long prevent the passing of laws similar to the forest laws of Europe.”⁴²

Thus, at the time when they pushed the governments to take their responsibility for the national property, the editors and contributors were convinced that the final solution of the problem required the enlightenment of the public. Any wise laws would be ineffective without the dramatic change of people’s habitual “thought, feeling, and action,” in the issue of preserving forests. To do this, “Americans need important and radical changes in the thought and spirit and character of our people. While the popular feeling about wealth, about bric-a-brac, about the objects of life remains what it is, the destruction of our forests, and of all that depends upon them, is likely to proceed unchecked.” The law would not avail anything unless “a general and intelligent appreciation of the value of our forests” was shaped. The implement of a systematic and rational forestry policy would not only realize the manifold values of forests, but also secure the interest of diverse social groups. Only when the public acknowledged the wisdom of forestry, could a democratic society be perpetuated like the forests growing on its soil.⁴³

⁴² J.B. Harrison, “Laws alone Cannot Save our Forests,” *G&F*, 14 March 1888, 25; Editorial, “The Future of American Forest,” *G&F*, 14 March 1888, 26; C.A. Scheck, “Private Forestry and State Forestry, I” *G&F*, 16 June 1897, 233.

⁴³ Editorial, “The Forestry Meeting at Philadelphia,” *G&F*, 16 October 1889, 493; J.B. Harrison, “The Forest: The Pennsylvania Forestry Association,” *G&F*, 23 May 1888, 154. The address was given by Harrison in the annual meeting of Pennsylvania Forestry Association.

In an editorial discussing the prevention of forest fires, the editors gave a simple solution to stop this most destructive power in forests: “First, inspire every person with a deeper love for his country. Second, teach him the proper use of fire by showing the danger of its misuse.” They went on saying that “The sum of the matter is that legislation is ineffective unless supported by the sentiments and the acts of the people.” In fact, *G&F* thought this answer was applicable in the whole forest issue. What the public needed to cultivate was, according to *G&F*, first, a national identity, breaking the boundary of narrow individualism and regionalism, which would make them care more about the public welfare and future generations in a broad sense; second, some knowledge and sentiment about nature, with which people would understand the necessity of protecting forests and respect the laws of nature. In the United States, the magazine admitted, these two crucial elements were not strong enough to stimulate the general acceptance of the new relationship between human beings and nature.⁴⁴

In his most important series of essays on “Forests and Civilization” published in *G&F*, Harrison indicated:

A nation should be a vital unity—a population organized for intelligent co-operation for the attainment of worthy practical ideals. The sentiment of nationality, or what is called by that name in our country, is still superficial and indefinite, with little vital relation to the present time, and our national life is in great degree inorganic, made up of scattered nuclei, and without common direction. We are wanting in some of the elements which are necessary to the persistence of national individuality.

In the eyes of the editors and contributors of *G&F*, the lack of the “national individuality” was the moral defect which doomed the nation’s forests and

⁴⁴ Editorial, “Forest fires—How to Stop Them,” *G&F*, 2 May 1894, 172.

civilization. People usually placed individual and local interest ahead of the national one, and confined “public spirit” to the sphere of their own community or no broader than their state, so they tended to neglect the national welfare and repel the federal government.⁴⁵

This was especially true in the nation’s West. When the senators and local media from the west jumped out to defend their interests and condemn the tyrannical claw of the East, the editors of *G&F* reminded them that “the forest reservations cannot be used exclusively for any particular class of the community; they belong as much to the east and to the south as they do to the west. They are part of the public domain, and it is for the interest of the whole country that they should belong to the nation.” They repeated that no local interest would be injured in adopting forestry policy. On the contrary, if nothing was done before the national forests vanished, the local inhabitants would be the first victims of this national catastrophe.⁴⁶

If on the issue of the urban environment, the magazine intended to retain a sort of local pride and attachment among their readers, on the issue of national forests, it attempted to evoke some patriotic nationalistic spirit. Ultimately, there was no confrontation between each other. They were both needed in an urbanized and industrialized society. The local attachment aimed to restore the lost physical and psychological intimacy between humans and the land under their feet, which emphasized a more aesthetic and spiritual side. In fact, it was a more universal and inclusive sentiment, not confined to any time, district, class, or race. A patriotic spirit

⁴⁵ J.B. Harrison, “Forests and Civilization,” *G&F*, 10 July 1889, 333.

⁴⁶ Editorial, “Congress and the Forest Reservations,” *G&F*, 17 March 1897, 101.

became important when all the aspects of the nation: industry, agriculture, nature, and culture, were intertwined by the expanding web of market and transportation. Not a single person or district could secure their interest when the nation's future was in danger. It entailed a more comprehensive concern which involved politics, economy, class, and nature. If the former was more intuitive, the latter needed to be cultivated.

In the United States, the patriotic spirit implied a unique meaning because of the short history of the nation. With less historical heritages and fewer cultural relics to celebrate, nature in this nation was established as a national monument. Bringing nature, its beauty and resource, into the realm of patriotism, the whole meaning of this term was dramatically enriched. It strengthened the tie between nature and nation, so that it emphasized the ethical responsibility that every single citizen of the nation had for nature. Although this ethic was still anthropocentric, to a certain extent, it helped balance the relationship between improvement and preservation, utility and beauty, and man and nature in general.

But a new patriotic spirit alone could not rescue the nation's forests either. In his essay on the forests of New Jersey, Harrison sarcastically stated that when floods and hillslides followed the death of forests, "the owners of the land accept such ruin as if it were wrought by the direct act of God, or the resistless processes of nature, whereas it is caused solely by their own lack of intelligence." These so called natural disasters had their root in human ignorance and greed. Those forests, having survived millions of years from the severity of all sorts of natural hardships, and stood harmoniously with Native Americans who had also depended on them for food, housing, and clothe

for thousands of years, were engulfed by the “civilized” people’s pursuit of improvement. After picturing the desolation caused by the white men’s wanton behaviors, Robert Douglas said: “We call the Indians savages! Yet they have more forethought in this case than the white men.” The understanding of forests and natural laws among people should be radically changed by the education of natural science.⁴⁷

The elementary scientific knowledge and principles of trees and their relationship with soil, water, and climate should be “domesticated-made at home-in the minds of the people,” because “Opinions which have no basis of knowledge are of slight value-are, indeed, hardly worthy of the name.” People should “think about trees, talk about them, read about them, write about them, until there is a tree-feeling in the air, and such a reverberation of sensible and practical teaching on the subject as will compel general attention.” And then, the interest in forests would be cultivated, the need of scientific forestry would be felt, and the value of forests would be appreciated.⁴⁸

The general public and policy makers, forests-owners, and farmers should all be educated, but the magazine focused its educational target on children because “the promise of future forests in the country seems to rest with the children, and depends upon their proper education.” In many editorials and essays, the magazine suggested that nature studies should be compulsory in different levels of school education, and the basic concepts and knowledge of botany should be taught. However, merely gaining knowledge was not enough. The accumulation of knowledge should lead

⁴⁷ J.B. Harrison, “The Forest: The Forests and Woodland of New Jersey, III,” *G&F*, 30 January 1889, 57; Robert Douglas, “The Forest: Tree Notes,” *G&F*, 6 June 1888, 179.

⁴⁸ Editorial, “Forests and Civilization,” *G&F*, 19 December 1888, 505; J.B. Harrison, “The Forest: Forestry in New England,” *G&F*, 20 February 1889, 92-3.

children not only to know trees, but also to “love and respect trees.” The editors foresaw that “when we come as a people to know and appreciate and love trees we shall learn to love forests, too; and once loving them, we shall appreciate their value, and efforts to preserve and maintain them and make them useful and productive for all time will then be a comparatively easy task.” Once the scientific knowledge and the affectionate sentiment won their combination among the public, especially the children, the editors and contributors of *G&F* felt a new age of forest conservation was truly coming. In this age, they expected that all the values of forests would be emphasized and realized.⁴⁹

For *G&F*, to fulfill the manifold values of forests revealed the relationship between civilization and forest in two aspects. First, on the material level, the forests managed and protected by forestry would facilitate abundant timber resources for the progress of an industrial civilization while securing a more healthy eco-system, and especially a water supply for agricultural, industrial, and domestic uses. Second, on the spiritual level, the question whether the nation could practice scientific forestry symbolized whether a nation was civilized or not. Some words from Harrison accurately conveyed the magazine’s worries on this subject. In his series of essays on the forests in Pennsylvania, he wrote that “the processes of forest destruction which are now in use belong to and represent exactly our present stage and degree of civilization. The perpetuation and rational treatment of forests would be a feature of a stage and degree of civilization which we have not attained.” Forestry, although

⁴⁹ Editorial, “Portable Saw –mills,” *G&F*, 17 July 1891, 277; “The Love of Trees,” *G&F*, 18 May 1892, 230.

drawing its major principles and methods from Europe, became a standard to judge the degree of civilization on the new continent. By conserving and using its forests in an efficient and multiple way, the magazine tried to convince their fellow Americans and the rest of the world, that the United States did not only possess the richest natural resources in the world, but also created a civilization not inferior to the one in Europe.⁵⁰

Beneath their discussion of the relationship between forests and civilization, there lay the optimistic expectation of the omni-present achievement of modern science and the promising enlightenment of public opinion in America. And the latter relied on the instruction of the former. As I suggested in the fourth chapter, the editors and the contributors of *G&F*, although having a deep respect for the laws of nature, thought that nature should and could be improved by the assistance of science. Science could bring order and efficiency to nature and redeem the nation's fate from self-destructive acts imposed on natural environment. The dream of productivity and permanence would become true, and the manifold values of forests would be realized. The magazine challenged some views and means associated with the pursuit of progress, but never tried to defy the fundamental commitment to progress itself.

This discussion was the prelude of the national conservation movement promoted in Theodore Roosevelt administration. The dichotomy of the preservation of natural beauty and the conservation of natural resources, which characterized the later movement, did not really bother the editors and contributors of *G&F* from its

⁵⁰ J.B. Harrison, "The Forest, Forest Interests in Pennsylvania, II," *G&F*, 26 June 1889, 309.

founding until the magazine ceased its publication. They saw a direct connection between scientific forestry and natural beauty. Forestry saved trees, and trees preserved natural beauty. They believed that although in a few places forests should be preserved in their original situation, in most others, forests could be replaced by newly planted species while maintaining their sustainable productivity and their aesthetic and ecological values.

But what they did not expect was that, governments could be as reckless and destructive toward forests as any private individual, and the potency of science in many ways was not as powerful as they conceived. Historian Paul Hirt pointed out that since the World War Two when the pace of industrialization and urbanization became even faster, the demand of timber has grown greater. The forest service leaders, politicians, and big industry owners have adopted “a conspiracy of optimism, asserting that more infusion of technology, labor, and capital would keep artificially high levels of production sustainable and protect forest ecosystem.” The economic profit has been the original motivation and the ultimate goal, and all the other non-commercial values realized in forests would merely be the by-products. Science and human power have served as the only faith, and simplicity and artificiality created by modern technology have replaced diversity of forests forged by nature. When the motivation of economic expansion and the blind commitment to science are combined, the fate of this conspiracy is doomed.⁵¹

⁵¹ Paul Hirt, *A Conspiracy of Optimism: Management of the National Forests since World War Two* (Lincoln: University of Nebraska Press, 1994), 293-4

This conspiracy could trace its origin back to *G&F*. As one of the major forces pushing forward the establishment of forestry, the magazine criticized the ignorance and irresponsibility of the contemporary private and government forest management, but it never suspected the potential of science and challenged the pursuit for unlimited progress. However, it is still difficult to simply categorize many of the contributors with Aldo Leopold's group A or B.⁵² Groups A "regards the land as soil, and its function as commodity-production," and "is quite content to grow trees like cabbages," while group B "regards the lands as a biota, and its function as something broader," and "sees forestry as fundamentally different from agronomy because it employs natural species, and manages a natural environment rather than creating an artificial one." Almost all the contributors, including Sargent and Harrison, writing on forest matters for *G&F* regarded trees managed by forestry as "crops," but almost all of them still emphasized the relation between the trees and their natural environment. For some contributors represented by Sargent, the primary value of forests was their crucial role in maintaining the balance of its natural economy, but for some others like Pinchot, this value was only the secondary concern of forestry. This conflict, however, did not prevent them from holding a common faith in science which was also the foundation of their optimism in realizing the multiple values of forests.⁵³

Unfortunately, neither the social landscape nor the natural landscape was as simple as they perceived. For many of them, especially for Sargent, if the intricate

⁵² Hirt uses the ecological view verse agronomic view to define the dualism in forest management. Since ecology as a scientific and philosophical term was rarely adopted by *G&F*, Leopold's "A-B cleavage" is a more appropriate definition to describe the contributors of the magazine.

⁵³ Aldo Leopold, *A Sand County Almanac, With Other Essays on Conservation from Round River* (New York: Oxford University Press, 1966), 236-7.

political and economic struggle and compromise were not too surprising, the fragile and complex system of nature's economy would be astonishing. Facing this system, even science sometimes was futile, especially when the later development of the scientific forestry has gone increasingly farther away from the comprehensive vision insisted by *G&F*, and has become more and more associated with the mere utilitarian pursuit. Permanence and sustainable productivity are always followed by a question mark.

Conclusion

Since last summer, my life has been in motion. From an American Midwestern college town to three sprawling Chinese metropolises to several European capitals, I roamed almost half of the earth. Spanning three continents and two oceans, the landscape, however, has reminded me of the words from *G&F* here and there. There are some places the editors and contributors of the magazine experienced, some scenes they extolled, some transformations they expected, and some problems they condemned. There are also some areas they never stepped on, some changes they could not predict, and some dilemmas or even disasters they were unable to imagine. But all the same, their ideas, advocacies, celebrations, and despairs contributed to the formation of the world and the environmental awareness we have today.

From 1888 to 1897, *G&F* intended to reconstruct the harmony between nature and mankind in an urban industrial society. The sense of urgency in the magazine was strong, the criticism was sharp, the tone was passionate, and the attitude was sincere. *G&F* talked about thousands of wild and domesticated species, shaped several professions, and led a national environmental movement. It intended to construct an integrated landscape, where nature and culture were incorporated, cities and countryside were combined, and gardens and forests were coexisting. In such a landscape, utility and beauty should complement each other, the scientific spirit and aesthetic sentiment should attain a balance, and local attachment and national concern,

personal experience and collective actions, should collaborate. This integrated landscape was very like the “partnership world” suggested by historian Carolyn Merchant where “both women and men would have equal capacities for understanding nature’s use value and an appreciation of its aesthetic value. Both would have equal abilities to use nature’s gifts to fulfill vital needs and to respond to nature’s need to simply *be*.”¹

This ideal landscape conceived by *G&F* has had a profound impact on shaping American natural and cultural landscapes, which still today try to achieve that unity of interaction between nature and human beings: a unity of the wild and the tamed, the native and the foreign, and the urban and the rural. In the one hundred years that followed the demise of *G&F*, around four hundred natural and historical sites were established within the national park system, 193 million acres of land were preserved as forest and grassland reserves, thousands of urban parks, playgrounds, and open spaces were constructed around the nation, and millions of trees were planted along streets, on farms, and in suburban neighborhoods. Today almost 15,000 forestry professionals are working in public and private agencies, and about 18,000 people are registered members of the American Society of Landscape Architects. Millions of people drive to national parks every season, mow their meadows every month, and take rambles in their neighborhood parks every week. Such changes have taken place not only in the physical environment, but also in government policy, the common people’s life style, and public opinion. Environmentalism appears in politicians’

¹ Carolyn Merchant, *Reinventing Eden: The Fate of Nature in Western Culture* (New York: Routledge, 2003), 246.

campaigns, on newspapers' headlines, in street protests' slogans, and at common peoples' dinner tables. No one could deny that environmental awareness in this nation has advanced substantially since the late 19th century.

G&F, however, as one of the pioneering forces in shaping this environmental awareness has long been neglected not only among the public but also among some of the professionals and experts whose fields were established partly due to the magazine. The reason is complicated. The withdrawal from the nation's environmental movement of the three most important figures underpinning the magazine—Stiles's death, Sargent's disillusionment, and Olmsted's illness—certainly caused a detriment to the magazine's influence after its demise. The magazine's short life also limited its reach to the later generations.

But the reason might be even more profound than these practical problems. To a certain extent, the magazine was too successful in its efforts in establishing new professions. The magazine itself still wanted a comprehensive approach to planning the American urban and rural environment, while it suggested applying particular scientific knowledge and professional training to deal with particular problems. It was searching for cooperation among various professions while it was building their principles and identities. It endorsed the authority of expertise and the responsibility of government, but it also celebrated public enthusiasm and strived for popular support. But that integrated approach has been eluding the nation. Very often, modern professionals have been too absorbed and confident in their spheres, failing to possess a more tolerant and broad view in their approach to the natural and human world, and

meanwhile, failing to recognize the significance of a magazine maintaining such a view published more than a hundred years ago.

In the half century after the magazine's publication, the environmental movement grew to be more and more fractured. *G&F* may have been somewhat responsible for this development of a more fragmented approach, contrary to its overall message. Its devout commitment to science was intertwined with its anthropocentric vision of nature, making it overly optimistic about human potency and engrossed merely with human welfare. The magazine intended to follow its own standard, to make value judgments on nature; thus, it was unable to recognize the intrinsic value of many objects in nature, and consequently, became less capable of understanding a self-sustaining natural system in a holistic and ethical way.

Therefore, the boundary between different disciplines became more distinct and absolute, and as a consequence, the values applied by humans to construe different natural realms were more limited and simple. Among different professions, there rose more apathy and even contradictions; and the multiple values of forests and gardens pursued by *G&F* were abandoned during the growth of professionalization. The development of forestry in the 20th century which had been promoted by the magazine, serves as a good example to show the increasingly narrower trajectory these new professionals were taking. In the forming age of forestry, the editors and many contributors of *G&F* intended to make this scientific theory and method a channel to conserve the resources of the forest, to preserve its beauty, and to protect its natural economy. But forestry became increasingly utility-oriented, and high

production stimulated by efficient management captured the attention of most American foresters. Thus, their relationship with the beauty or ecology-centered groups was strained by growing tensions and contradictions.

It is worth noting that among landscape architects, the tradition of this integrated view was better retained. Olmsted's son Frederick Law Olmsted Jr. was among those carrying his father's ideal and career into a new century and stage, unifying his work in building metropolitan areas and designing national parks. But between these landscape architects and other professionals, such as foresters, architects, and even urban planners, there were more conflicts than collaborations.

At the same time, the gap between experts and the general public grew wider and deeper: while the former has accumulated more recognition and dominance, the latter has lost their voice which was encouraged by the magazine in reforming the relationship between nature and humans. For *G&F*, personal experience in planting natural species, observing natural objects, and enjoying natural beauty was crucial in retaining the harmony between nature and humans; but for the new professionals, specific scientific knowledge and approaches were almost the single means to fulfill this goal. In the meanwhile, more and more responsibilities were placed on government and legislation in conserving natural resources for future generation, while the public enlightenment regarded as an indispensable power conceived by *G&F* was greatly ignored in the later development. In the 1940s when the environmental prophet Aldo Leopold advocated personal husbandry and emotion in constructing a land community where man thought and behaved as a member rather

than a conqueror, more or less he was echoing the early call made by *G&F* around half a century ago. Although he might have not read the magazine itself, Leopold was familiar with the thought of some of the most outstanding contributors, such as Liberty Bailey, and his idea was built up on the intellectual foundation laid by *G&F* and other environmental writings and works.

If Leopold was the one who held the integrated view to redefine the fundamental relationship between nature and human beings, Lewis Mumford was the one who applied the same view to interpret and criticize the problems of modern urban civilization and to construct a more organic relationship between humans and their urban environments. His concern about the loss of the attachment between man and nature was the extension of the unease felt by many contributors of *G&F*, but his criticism of modern technics, a social machine incorporating both technological innovations and other economic and ideological products generated by the industrial urban process, was much more profound and harsh.

When we examine the transformation of the American environmental movement from the age of *G&F* to the postwar environmentalism, we see the expansion of its scope, the diversification of its subjects, and the intensification of its demands, but the more radical and fundamental change was the transition from an anthropocentric view to a biocentric view. The pursuit for the quality of life did become the major theme of the postwar environmental movement, but it had already been an important component in the late 19th century when this movement was taking shape. What has been rising in the more recent environmental concerns but was lacking in the earlier

ones was the self-inspection of human power, the suspicion of the potency of science and technology, and the challenge of unlimited progress. When science has created unparalleled achievements in reshaping the earth and mankind has gained unprecedented independence from nature, it becomes more pertinent for all of us to see our own smallness, to notice that we human beings only occupy “one fraction” of the earth. Our partnership should extend to other species who occupy other fractions of the earth. We have to learn how to be more humble toward and intimate with nature in order to balance our faith in science and to reassess our position on earth.

Along with all these changes in our environmental awareness, there has not been a platform for voices from various professions and amateurs to have a dialogue since the demise of *G&F*. Those American intellectuals living more than a century ago did create such a platform. Through a magazine, a collective cultural force, they intended to construct an integrated landscape sustaining both civilization and nature under the direction and assistance of specific scientific knowledge and a comprehensive approach. Today, when our society has been increasingly sophisticated and refined, when professionalization has still been an ongoing tendency, and when we have accumulated more severe environmental problems, isn't it necessary for us to reconstruct such an institutional home for more communications among various disciplines?

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